Wouter Van Elmpt

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/10942260/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	External Validation of a Bayesian Network for Error Detection in Radiotherapy Plans. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 200-206.	2.7	4
2	Joint EANM/SNMMI/ESTRO practice recommendations for the use of 2-[18F]FDG PET/CT external beam radiation treatment planning in lung cancer V1.0. European Journal of Nuclear Medicine and Molecular Imaging, 2022, 49, 1386-1406.	3.3	24
3	Perspective paper about the joint EANM/SNMMI/ESTRO practice recommendations for the use of 2-[18F]FDG-PET/CT external beam radiation treatment planning in lung cancer. Radiotherapy and Oncology, 2022, 168, 37-39.	0.3	4
4	Positron emission tomography guided dose painting by numbers of lung cancer: Alanine dosimetry in an anthropomorphic phantom. Physics and Imaging in Radiation Oncology, 2022, 21, 101-107.	1.2	1
5	Prediction Models for Radiation-Induced Neurocognitive Decline in Adult Patients With Primary or Secondary Brain Tumors: A Systematic Review. Frontiers in Psychology, 2022, 13, 853472.	1.1	5
6	Automatic dose verification system for breast radiotherapy: Method validation, contour propagation and DVH parameters evaluation. Physica Medica, 2022, 97, 44-49.	0.4	1
7	Real-world analysis of manual editing of deep learning contouring in the thorax region. Physics and Imaging in Radiation Oncology, 2022, 22, 104-110.	1.2	11
8	Visually guided inspiration breath-hold facilitated with nasal high flow therapy in locally advanced lung cancer. Acta Oncológica, 2021, 60, 567-574.	0.8	10
9	Lymph node response to chemoradiotherapy in oesophageal cancer patients: relationship with radiotherapy fields. Esophagus, 2021, 18, 100-110.	1.0	1
10	Studying local tumour heterogeneity on MRI and FDG-PET/CT to predict response to neoadjuvant chemoradiotherapy in rectal cancer. European Radiology, 2021, 31, 7031-7038.	2.3	12
11	In reply to the letter to the editor: "In reply to Fiorino et al: The central role of the radiation oncologist in the multidisciplinary and multiprofessional model of modern radiation therapyâ€. Radiotherapy and Oncology, 2021, 155, e22-e23.	0.3	0
12	Medical Physics and Imagingâ \in "A Timely Perspective. Frontiers in Physics, 2021, 9, .	1.0	5
13	Treatment planning and 4D robust evaluation strategy for proton therapy of lung tumors with large motion amplitude. Medical Physics, 2021, 48, 4425-4437.	1.6	11
14	Professional practice changes in radiotherapy physics during the COVID-19 pandemic. Physics and Imaging in Radiation Oncology, 2021, 19, 25-32.	1.2	5
15	The impact of organ-at-risk contour variations on automatically generated treatment plans for NSCLC. Radiotherapy and Oncology, 2021, 163, 136-142.	0.3	14
16	Regional lung avoidance by CT numbers to reduce radiation-induced lung damage risk in non-small–cell lung cancer: a simulation study. Acta Oncológica, 2020, 59, 201-207.	0.8	5
17	Multifactorial risk factors for mortality after chemotherapy and radiotherapy for non-small cell lung cancer. Radiotherapy and Oncology, 2020, 152, 117-125.	0.3	19
18	Nitroglycerin as a radiosensitizer in non-small cell lung cancer: Results of a prospective imaging-based phase II trial. Clinical and Translational Radiation Oncology, 2020, 21, 49-55.	0.9	11

#	Article	IF	CITATIONS
19	Evaluation of measures for assessing time-saving of automatic organ-at-risk segmentation in radiotherapy. Physics and Imaging in Radiation Oncology, 2020, 13, 1-6.	1.2	95
20	Grand challenges for medical physics in radiation oncology. Radiotherapy and Oncology, 2020, 153, 7-14.	0.3	33
21	Professional quality of life and burnout among medical physicists working in radiation oncology: The role of alexithymia and empathy. Physics and Imaging in Radiation Oncology, 2020, 15, 38-43.	1.2	22
22	Overview of artificial intelligence-based applications in radiotherapy: Recommendations for implementation and quality assurance. Radiotherapy and Oncology, 2020, 153, 55-66.	0.3	147
23	External validation of deep learning-based contouring of head and neck organs at risk. Physics and Imaging in Radiation Oncology, 2020, 15, 8-15.	1.2	40
24	Treatment plan quality assessment for radiotherapy of rectal cancer patients using prediction of organ-at-risk dose metrics. Physics and Imaging in Radiation Oncology, 2020, 16, 74-80.	1.2	4
25	The role of alexithymia and empathy on radiation therapists' professional quality of life. Technical Innovations and Patient Support in Radiation Oncology, 2020, 15, 29-36.	0.6	11
26	Professional quality of life and burnout amongst radiation oncologists: The impact of alexithymia and empathy. Radiotherapy and Oncology, 2020, 147, 162-168.	0.3	22
27	CT images with expert manual contours of thoracic cancer for benchmarking autoâ€segmentation accuracy. Medical Physics, 2020, 47, 3250-3255.	1.6	15
28	Value of combined multiparametric MRI and FDG-PET/CT to identify well-responding rectal cancer patients before the start of neoadjuvant chemoradiation. European Radiology, 2020, 30, 2945-2954.	2.3	12
29	Machine learning applications in radiation oncology: Current use and needs to support clinical implementation. Physics and Imaging in Radiation Oncology, 2020, 16, 144-148.	1.2	39
30	Prevalence of software alerts in radiotherapy. Technical Innovations and Patient Support in Radiation Oncology, 2020, 14, 32-35.	0.6	3
31	Can Atlas-Based Auto-Segmentation Ever Be Perfect? Insights From Extreme Value Theory. IEEE Transactions on Medical Imaging, 2019, 38, 99-106.	5.4	21
32	Inter-observer variability in target delineation increases during adaptive treatment of head-and-neck and lung cancer. Acta Oncológica, 2019, 58, 1378-1385.	0.8	24
33	Challenges and caveats of a multi-center retrospective radiomics study: an example of early treatment response assessment for NSCLC patients using FDG-PET/CT radiomics. PLoS ONE, 2019, 14, e0217536.	1.1	38
34	An Evaluation of Atlas Selection Methods for Atlas-Based Automatic Segmentation in Radiotherapy Treatment Planning. IEEE Transactions on Medical Imaging, 2019, 38, 2654-2664.	5.4	23
35	Longitudinal radiomics of cone-beam CT images from non-small cell lung cancer patients: Evaluation of the added prognostic value for overall survival and locoregional recurrence. Radiotherapy and Oncology, 2019, 136, 78-85.	0.3	48
36	Impact of <scp>SBRT</scp> fractionation in hypoxia dose painting — Accounting for heterogeneous and dynamic tumor oxygenation. Medical Physics, 2019, 46, 2512-2521.	1.6	17

#	Article	IF	CITATIONS
37	The acute and late toxicity results of a randomized phase II dose-escalation trial in non-small cell lung cancer (PET-boost trial). Radiotherapy and Oncology, 2019, 131, 166-173.	0.3	59
38	Genomics of non-small cell lung cancer (NSCLC): Association between CT-based imaging features and EGFR and K-RAS mutations in 122 patients—An external validation. European Journal of Radiology, 2019, 110, 148-155.	1.2	22
39	Learning radiation oncology in Europe: Results of the ESTRO multidisciplinary survey. Clinical and Translational Radiation Oncology, 2018, 9, 61-67.	0.9	26
40	Imaging for Target Volume Definition and Response Assessment in Lung Cancer. Progress in Tumor Research, 2018, , 41-47.	0.1	0
41	A secondary analysis of FDG spatio-temporal consistency in the randomized phase II PET-boost trial in stage II–III NSCLC. Radiotherapy and Oncology, 2018, 127, 259-266.	0.3	4
42	Non-linear conversion of HX4 uptake for automatic segmentation of hypoxic volumes and dose prescription. Acta Oncológica, 2018, 57, 485-490.	0.8	8
43	Clinical evaluation of atlas and deep learning based automatic contouring for lung cancer. Radiotherapy and Oncology, 2018, 126, 312-317.	0.3	256
44	Comparative evaluation of autocontouring in clinical practice: A practical method using the Turing test. Medical Physics, 2018, 45, 5105-5115.	1.6	58
45	Quantitative computed tomography in radiation therapy: A mature technology with a bright future. Physics and Imaging in Radiation Oncology, 2018, 6, 12-13.	1.2	5
46	Pre-treatment CT radiomics to predict 3-year overall survival following chemoradiotherapy of esophageal cancer. Acta OncolA ³ gica, 2018, 57, 1475-1481.	0.8	58
47	Applicability of a prognostic CT-based radiomic signature model trained on stage I-III non-small cell lung cancer in stage IV non-small cell lung cancer. Lung Cancer, 2018, 124, 6-11.	0.9	39
48	Reply to: "Comment on: Dualâ€energy CT quantitative imaging: A comparison study between twinâ€beam and dualâ€source CT scanners [Med. Phys. 44(1), 171–179 (2017)]― Medical Physics, 2018, 45, 3997-3998.	1.6	1
49	Autosegmentation for thoracic radiation treatment planning: A grand challenge at AAPM 2017. Medical Physics, 2018, 45, 4568-4581.	1.6	169
50	What you see is (not) what you get: tools for a non-radiologist to evaluate image quality in lung cancer. Lung Cancer, 2018, 123, 112-115.	0.9	2
51	18F-fluorodeoxyglucose positron-emission tomography (FDG-PET)-Radiomics of metastatic lymph nodes and primary tumor in non-small cell lung cancer (NSCLC) – A prospective externally validated study. PLoS ONE, 2018, 13, e0192859.	1.1	57
52	Decision support systems for personalized and participative radiation oncology. Advanced Drug Delivery Reviews, 2017, 109, 131-153.	6.6	113
53	Regional variability in radiation-induced lung damage can be predicted by baseline CT numbers. Radiotherapy and Oncology, 2017, 122, 300-306.	0.3	21
54	Dualâ€energy CT quantitative imaging: a comparison study between twinâ€beam and dualâ€source CT scanners. Medical Physics, 2017, 44, 171-179.	1.6	101

#	Article	IF	CITATIONS
55	Defining the hypoxic target volume based on positron emission tomography for image guided radiotherapy $\hat{a} \in \hat{C}$ the influence of the choice of the reference region and conversion function. Acta Oncol \hat{A}^3 gica, 2017, 56, 819-825.	0.8	13
56	Survival prediction of non-small cell lung cancer patients using radiomics analyses of cone-beam CT images. Radiotherapy and Oncology, 2017, 123, 363-369.	0.3	136
57	A novel concept for tumour targeting with radiation: Inverse dose-painting or targeting the "Low Drug Uptake Volumeâ€: Radiotherapy and Oncology, 2017, 124, 513-520.	0.3	22
58	Automatic selection of lung cancer patients for adaptive radiotherapy using cone-beam CT imaging. Physics and Imaging in Radiation Oncology, 2017, 1, 21-27.	1.2	10
59	PET imaging of zirconium-89 labelled cetuximab: A phase I trial in patients with head and neck and lung cancer. Radiotherapy and Oncology, 2017, 122, 267-273.	0.3	48
60	Quantitative radiomics studies for tissue characterization: a review of technology and methodological procedures. British Journal of Radiology, 2017, 90, 20160665.	1.0	270
61	Radiomics: the bridge between medical imaging and personalized medicine. Nature Reviews Clinical Oncology, 2017, 14, 749-762.	12.5	3,216
62	Development of a virtual spacer to support the decision for the placement of an implantable rectum spacer for prostate cancer radiotherapy: Comparison of dose, toxicity and cost-effectiveness. Radiotherapy and Oncology, 2017, 125, 107-112.	0.3	23
63	Feature selection methodology for longitudinal cone-beam CT radiomics. Acta Oncológica, 2017, 56, 1537-1543.	0.8	55
64	Predicting tumor hypoxia in non-small cell lung cancer by combining CT, FDG PET and dynamic contrast-enhanced CT. Acta Oncológica, 2017, 56, 1591-1596.	0.8	15
65	Standard of care in high-dose radiotherapy for localized non-small cell lung cancer. Acta Oncológica, 2017, 56, 1610-1613.	0.8	2
66	Three-dimensional dose evaluation in breast cancer patients to define decision criteria for adaptive radiotherapy. Acta Oncológica, 2017, 56, 1487-1494.	0.8	10
67	Quality assessment of positron emission tomography scans: recommendations for future multicentre trials. Acta Oncológica, 2017, 56, 1459-1464.	0.8	11
68	Influence of gray level discretization on radiomic feature stability for different CT scanners, tube currents and slice thicknesses: a comprehensive phantom study. Acta Oncológica, 2017, 56, 1544-1553.	0.8	183
69	Clinical evaluation of a novel CT image reconstruction algorithm for direct dose calculations. Physics and Imaging in Radiation Oncology, 2017, 2, 11-16.	1.2	18
70	4DCT imaging to assess radiomics feature stability: An investigation for thoracic cancers. Radiotherapy and Oncology, 2017, 125, 147-153.	0.3	61
71	Clustering of multi-parametric functional imaging to identify high-risk subvolumes in non-small cell lung cancer. Radiotherapy and Oncology, 2017, 125, 379-384.	0.3	23
72	Detection of anatomical changes in lung cancer patients with 2D time-integrated, 2D time-resolved and 3D time-integrated portal dosimetry: a simulation study. Physics in Medicine and Biology, 2017, 62, 6044-6061.	1.6	9

#	Article	IF	CITATIONS
73	[18F]FDG PET/CT-based response assessment of stage IV non-small cell lung cancer treated with paclitaxel-carboplatin-bevacizumab with or without nitroglycerin patches. European Journal of Nuclear Medicine and Molecular Imaging, 2017, 44, 8-16.	3.3	20
74	Quantitative assessment of Zirconium-89 labeled cetuximab using PET/CT imaging in patients with advanced head and neck cancer: a theragnostic approach. Oncotarget, 2017, 8, 3870-3880.	0.8	48
75	Test–Retest Data for Radiomics Feature Stability Analysis: Generalizable or Study-Specific?. Tomography, 2016, 2, 361-365.	0.8	135
76	Validation of dose painting of lung tumours using alanine/EPR dosimetry. Physics in Medicine and Biology, 2016, 61, 2243-2254.	1.6	6
77	The promise of multiparametric imaging in oncology: how do we move forward?. European Journal of Nuclear Medicine and Molecular Imaging, 2016, 43, 1195-1198.	3.3	7
78	Evaluation of tumour hypoxia during radiotherapy using [18F]HX4 PET imaging and blood biomarkers in patients with head and neck cancer. European Journal of Nuclear Medicine and Molecular Imaging, 2016, 43, 2139-2146.	3.3	51
79	Dual energy CT in radiotherapy: Current applications and future outlook. Radiotherapy and Oncology, 2016, 119, 137-144.	0.3	131
80	Improved dose calculation accuracy for low energy brachytherapy by optimizing dual energy CT imaging protocols for noise reduction using sinogram affirmed iterative reconstruction. Zeitschrift Fur Medizinische Physik, 2016, 26, 75-87.	0.6	28
81	Multiparametric imaging of patient and tumour heterogeneity in non-small-cell lung cancer: quantification of tumour hypoxia, metabolism and perfusion. European Journal of Nuclear Medicine and Molecular Imaging, 2016, 43, 240-248.	3.3	64
82	Quantification of CT-assessed radiation-induced lung damage in lung cancer patients treated with or without chemotherapy and cetuximab. Acta Oncológica, 2016, 55, 156-162.	0.8	11
83	PET-based dose painting in non-small cell lung cancer: Comparing uniform dose escalation with boosting hypoxic and metabolically active sub-volumes. Radiotherapy and Oncology, 2015, 116, 281-286.	0.3	64
84	A Comparative Study of the Hypoxia PET Tracers [18F]HX4, [18F]FAZA, and [18F]FMISO in a Preclinical Tumor Model. International Journal of Radiation Oncology Biology Physics, 2015, 91, 351-359.	0.4	139
85	Expanding the scientific role of medical physics in radiotherapy: Time to act. Radiotherapy and Oncology, 2015, 117, 401-402.	0.3	15
86	The influence of gastric filling instructions on dose delivery in patients with oesophageal cancer: A prospective study. Radiotherapy and Oncology, 2015, 117, 442-447.	0.3	10
87	Accurate prediction of target dose-escalation and organ-at-risk dose levels for non-small cell lung cancer patients. Radiotherapy and Oncology, 2015, 117, 453-458.	0.3	21
88	Evaluating Tumor Response of Non-Small Cell Lung Cancer Patients With 18F-Fludeoxyglucose Positron Emission Tomography: Potential for Treatment Individualization. International Journal of Radiation Oncology Biology Physics, 2015, 91, 376-384.	0.4	27
89	Imaging of tumour hypoxia and metabolism in patients with head and neck squamous cell carcinoma. Acta Oncológica, 2015, 54, 1378-1384.	0.8	17
90	TH-302 in Combination with Radiotherapy Enhances the Therapeutic Outcome and Is Associated with Pretreatment [18F]HX4 Hypoxia PET Imaging. Clinical Cancer Research, 2015, 21, 2984-2992.	3.2	95

#	Article	IF	CITATIONS
91	Modern clinical research: How rapid learning health care and cohort multiple randomised clinical trials complement traditional evidence based medicine. Acta Oncológica, 2015, 54, 1289-1300.	0.8	59
92	Comparison of [18F]-FMISO, [18F]-FAZA and [18F]-HX4 for PET imaging of hypoxia – a simulation study. Acta Oncológica, 2015, 54, 1370-1377.	0.8	61
93	Repeatability of hypoxia PET imaging using [18F]HX4 in lung and head and neck cancer patients: a prospective multicenter trial. European Journal of Nuclear Medicine and Molecular Imaging, 2015, 42, 1840-1849.	3.3	55
94	CT characteristics allow identification of patient-specific susceptibility for radiation-induced lung damage. Radiotherapy and Oncology, 2015, 117, 29-35.	0.3	48
95	Impact of PET reconstruction algorithm and threshold on dose painting of non-small cell lung cancer. Radiotherapy and Oncology, 2014, 113, 210-214.	0.3	15
96	A qualitative synthesis of the evidence behind elective lymph node irradiation in oesophageal cancer. Radiotherapy and Oncology, 2014, 113, 166-174.	0.3	22
97	<i>In Vivo</i> Quantification of Hypoxic and Metabolic Status of NSCLC Tumors Using [18F]HX4 and [18F]FDG-PET/CT Imaging. Clinical Cancer Research, 2014, 20, 6389-6397.	3.2	81
98	A Longitudinal Evaluation of Partial Lung Irradiation in Mice by Using a Dedicated Image-Guided Small Animal Irradiator. International Journal of Radiation Oncology Biology Physics, 2014, 90, 696-704.	0.4	44
99	Validation of nonrigid registration in pretreatment and followâ€up PET/CT scans for quantification of tumor residue in lung cancer patients. Journal of Applied Clinical Medical Physics, 2014, 15, 240-250.	0.8	5
100	Imaging techniques for tumour delineation and heterogeneity quantification of lung cancer: overview of current possibilities. Journal of Thoracic Disease, 2014, 6, 319-27.	0.6	17
101	Characterization of tumor heterogeneity using dynamic contrast enhanced CT and FDG-PET in non-small cell lung cancer. Radiotherapy and Oncology, 2013, 109, 65-70.	0.3	37
102	â€~Rapid Learning health care in oncology' – An approach towards decision support systems enabling customised radiotherapy'. Radiotherapy and Oncology, 2013, 109, 159-164.	0.3	175
103	Predicting outcomes in radiation oncology—multifactorial decision support systems. Nature Reviews Clinical Oncology, 2013, 10, 27-40.	12.5	329
104	Hypoxia imaging with [18F]HX4 PET in NSCLC patients: Defining optimal imaging parameters. Radiotherapy and Oncology, 2013, 109, 58-64.	0.3	81
105	State of the Art Radiation Therapy for Lung Cancer 2012: A Glimpse of the Future. Clinical Lung Cancer, 2013, 14, 89-95.	1.1	38
106	Effects of quantum noise in 4D-CT on deformable image registration and derived ventilation data. Physics in Medicine and Biology, 2013, 58, 7661-7672.	1.6	15
107	Quantification of radiation-induced lung damage with CT scans: The possible benefit for radiogenomics. Acta Oncológica, 2013, 52, 1405-1410.	0.8	45
108	Prognostic value of metabolic metrics extracted from baseline positron emission tomography images in non-small cell lung cancer. Acta Oncológica, 2013, 52, 1398-1404.	0.8	44

#	Article	IF	CITATIONS
109	Validation of three deformable image registration algorithms for the thorax. Journal of Applied Clinical Medical Physics, 2013, 14, 19-30.	0.8	25
110	Dependence of ventilation image derived from 4D CT on deformable image registration and ventilation algorithms. Journal of Applied Clinical Medical Physics, 2013, 14, 150-162.	0.8	13
111	Should Patient Setup in Lung Cancer Be Based on the Primary Tumor? An Analysis of Tumor Coverage and Normal Tissue Dose Using Repeated Positron Emission Tomography/Computed Tomography Imaging. International Journal of Radiation Oncology Biology Physics, 2012, 82, 379-385.	0.4	8
112	Is high-dose stereotactic body radiotherapy (SBRT) for stage I non-small cell lung cancer (NSCLC) overkill? A systematic review. Radiotherapy and Oncology, 2012, 105, 145-149.	0.3	89
113	The PET-boost randomised phase II dose-escalation trial in non-small cell lung cancer. Radiotherapy and Oncology, 2012, 104, 67-71.	0.3	205
114	Response Assessment Using ¹⁸ F-FDG PET Early in the Course of Radiotherapy Correlates with Survival in Advanced-Stage Non–Small Cell Lung Cancer. Journal of Nuclear Medicine, 2012, 53, 1514-1520.	2.8	106
115	Identification of residual metabolic-active areas within NSCLC tumours using a pre-radiotherapy FDG-PET-CT scan: A prospective validation. Lung Cancer, 2012, 75, 73-76.	0.9	97
116	Assessment of tumour size in PET/CT lung cancer studies: PET- and CT-based methods compared to pathology. EJNMMI Research, 2012, 2, 56.	1.1	57
117	Early CT and FDG-metabolic tumour volume changes show a significant correlation with survival in stage l–III small cell lung cancer: A hypothesis generating study. Radiotherapy and Oncology, 2011, 99, 172-175.	0.3	42
118	Radiotherapy with curative intent for lung cancer: A continuing success story. Radiotherapy and Oncology, 2011, 101, 237-239.	0.3	7
119	Optimal gating compared to 3D and 4D PET reconstruction for characterization of lung tumours. European Journal of Nuclear Medicine and Molecular Imaging, 2011, 38, 843-855.	3.3	109
120	Volume or Position Changes of Primary Lung Tumor During (Chemo-)Radiotherapy Cannot Be Used as a Surrogate for Mediastinal Lymph Node Changes: The Case for Optimal Mediastinal Lymph Node Imaging During Radiotherapy. International Journal of Radiation Oncology Biology Physics, 2011, 79, 89-95.	0.4	19
121	3D dose delivery verification using repeated cone-beam imaging and EPID dosimetry for stereotactic body radiotherapy of non-small cell lung cancer. Radiotherapy and Oncology, 2010, 94, 188-194.	0.3	35
122	EPID dosimetry must soon become an essential component of IMRT quality assurance. Medical Physics, 2009, 36, 4325-4327.	1.6	11
123	Evaluation of nonrigid registration models for interfraction dose accumulation in radiotherapy. Medical Physics, 2009, 36, 4268-4276.	1.6	73
124	3D In Vivo Dosimetry Using Megavoltage Cone-Beam CT and EPID Dosimetry. International Journal of Radiation Oncology Biology Physics, 2009, 73, 1580-1587.	0.4	71
125	The next step in patient-specific QA: 3D dose verification of conformal and intensity-modulated RT based on EPID dosimetry and Monte Carlo dose calculations. Radiotherapy and Oncology, 2008, 86, 86-92.	0.3	83
126	Transition from a simple to a more advanced dose calculation algorithm for radiotherapy of non-small cell lung cancer (NSCLC): Implications for clinical implementation in an individualized dose-escalation protocol. Radiotherapy and Oncology, 2008, 88, 326-334.	0.3	30

#	Article	IF	CITATIONS
127	A literature review of electronic portal imaging for radiotherapy dosimetry. Radiotherapy and Oncology, 2008, 88, 289-309.	0.3	384