Daniela Thorwarth

List of Publications by Year
in descending order

98 papers	5,358 citations	126907 33 h-index	91884 69 g-index
105 all docs	105 docs citations	105 times ranked	5662 citing authors

#	Article	IF	Citations
1	The Image Biomarker Standardization Initiative: Standardized Quantitative Radiomics for High-Throughput Image-based Phenotyping. Radiology, 2020, 295, 328-338.	7.3	1,869
2	Hypoxia Dose Painting by Numbers: A Planning Study. International Journal of Radiation Oncology Biology Physics, 2007, 68, 291-300.	0.8	269
3	A kinetic model for dynamic [18F]-Fmiso PET data to analyse tumour hypoxia. Physics in Medicine and Biology, 2005, 50, 2209-2224.	3.0	159
4	Kinetic analysis of dynamic 18F-fluoromisonidazole PET correlates with radiation treatment outcome in head-and-neck cancer. BMC Cancer, 2005, 5, 152.	2.6	156
5	Combined uptake of [18F]FDG and [18F]FMISO correlates with radiation therapy outcome in head-and-neck cancer patients. Radiotherapy and Oncology, 2006, 80, 151-156.	0.6	148
6	PET/CT imaging for target volume delineation in curative intent radiotherapy of non-small cell lung cancer: IAEA consensus report 2014. Radiotherapy and Oncology, 2015, 116, 27-34.	0.6	120
7	Prognostic value of dynamic hypoxia PET in head and neck cancer: Results from a planned interim analysis of a randomized phase II hypoxia-image guided dose escalation trial. Radiotherapy and Oncology, 2017, 124, 526-532.	0.6	107
8	Physical radiotherapy treatment planning based on functional PET/CT data. Radiotherapy and Oncology, 2010, 96, 317-324.	0.6	101
9	A strategy for multimodal deformable image registration to integrate PET/MR into radiotherapy treatment planning. Acta OncolÃ³gica, 2013, 52, 1353-1359.	1.8	89
10	Identification of Patient Benefit From Proton Therapy for Advanced Head and Neck Cancer Patients Based on Individual and Subgroup Normal Tissue Complication Probability Analysis. International Journal of Radiation Oncology Biology Physics, 2015, 92, 1165-1174.	0.8	89
11	ESTRO ACROP: Technology for precision small animal radiotherapy research: Optimal use and challenges. Radiotherapy and Oncology, 2018, 126, 471-478.	0.6	88
12	Implementation of hypoxia imaging into treatment planning and delivery. Radiotherapy and Oncology, 2010, 97, 172-175.	0.6	83
13	A Model of Reoxygenation Dynamics of Head-And-Neck Tumors Based on Serial 18F-Fluoromisonidazole Positron Emission Tomography Investigations. International Journal of Radiation Oncology Biology Physics, 2007, 68, 515-521.	0.8	76
14	Simultaneous 68Ga-DOTATOC-PET/MRI for IMRT Treatment Planning for Meningioma: First Experience. International Journal of Radiation Oncology Biology Physics, 2011, 81, 277-283.	0.8	75
15	Quantitative imaging for radiotherapy purposes. Radiotherapy and Oncology, 2020, 146, 66-75.	0.6	71
16	Functional imaging for radiotherapy treatment planning: current status and future directionsâ€”a review. British Journal of Radiology, 2015, 88, 20150056.	2.2	64
17	Dose painting with IMPT, helical tomotherapy and IMXT: A dosimetric comparison. Radiotherapy and Oncology, 2008, 86, 30-34.	0.6	63
18	Image guidance in radiation therapy for better cure of cancer. Molecular Oncology, 2020, 14, 1470-1491.	4.6	63

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19	Comparison of [18F]-FMISO, [18F]-FAZA and [18F]-HX4 for PET imaging of hypoxia â€“ a simulation study. Acta OncolÃ³gica, 2015, 54, 1370-1377.	1.8	61
20	ADC measurements on the Unity MR-linac â€“ A recommendation on behalf of the Elekta Unity MR-linac consortium. Radiotherapy and Oncology, 2020, 153, 106-113.	0.6	60
21	Artificial Intelligence in magnetic Resonance guided Radiotherapy: Medical and physical considerations on state of art and future perspectives. Physica Medica, 2021, 85, 175-191.	0.7	60
22	Modelling and simulation of [18F]fluoromisonidazole dynamics based on histology-derived microvessel maps. Physics in Medicine and Biology, 2011, 56, 2045-2057.	3.0	54
23	Partial breast irradiation with the 1.5ÂT MR-Linac: First patient treatment and analysis of electron return and stream effects. Radiotherapy and Oncology, 2020, 145, 30-35.	0.6	54
24	Initial Feasibility and Clinical Implementation of Daily MR-Guided Adaptive Head and Neck Cancer Radiation Therapy on a 1.5T MR-Linac System: Prospective R-IDEAL 2a/2b Systematic Clinical Evaluation of Technical Innovation. International Journal of Radiation Oncology Biology Physics, 2021, 109, 1606-1618.	0.8	52
25	Potentials and challenges of diffusion-weighted magnetic resonance imaging in radiotherapy. Clinical and Translational Radiation Oncology, 2018, 13, 29-37.	1.7	47
26	Potential role of PET/MRI in radiotherapy treatment planning. Clinical and Translational Imaging, 2013, 1, 45-51.	2.1	44
27	Rationale for Combining Radiotherapy and Immune Checkpoint Inhibition for Patients With Hypoxic Tumors. Frontiers in Immunology, 2019, 10, 407.	4.8	44
28	Ionization chamber correction factors for MR-linacs. Physics in Medicine and Biology, 2018, 63, 11NT03.	3.0	41
29	Prospective evaluation of a hydrogel spacer for rectal separation in dose-escalated intensity-modulated radiotherapy for clinically localized prostate cancer. BMC Cancer, 2013, 13, 27.	2.6	39
30	Technical Challenges of Real-Time Adaptive MR-Guided Radiotherapy. Frontiers in Oncology, 2021, 11, 634507.	2.8	38
31	Prospective Evaluation of a Tumor Control Probability Model Based on Dynamic ¹⁸F-FMISO PET for Head and Neck Cancer Radiotherapy. Journal of Nuclear Medicine, 2019, 60, 1698-1704.	5.0	37
32	NTCP reduction for advanced head and neck cancer patients using proton therapy for complete or sequential boost treatment versus photon therapy. Acta OncolÃ³gica, 2015, 54, 1658-1664.	1.8	36
33	Quantitative magnetic resonance imaging on hybrid magnetic resonance linear accelerators: Perspective on technical and clinical validation. Physics and Imaging in Radiation Oncology, 2020, 16, 69-73.	2.9	36
34	Molecular Imaging-Guided Radiotherapy for the Treatment of Head-and-Neck Squamous Cell Carcinoma: Does it Fulfill the Promises?. Seminars in Radiation Oncology, 2018, 28, 35-45.	2.2	35
35	Multi-modality functional image guided dose escalation in the presence of uncertainties. Radiotherapy and Oncology, 2014, 111, 354-359.	0.6	32
36	Assessment of image quality of a radiotherapy-specific hardware solution for PET/MRI in head and neck cancer patients. Radiotherapy and Oncology, 2018, 128, 485-491.	0.6	32

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37	Comparison of different adjuvant radiotherapy approaches in childhood bladder/prostate rhabdomyosarcoma treated with conservative surgery. Strahlentherapie Und Onkologie, 2011, 187, 715-721.	2.0	30
38	Modelling and simulation of the influence of acute and chronic hypoxia on [¹⁸F]fluoromisonidazole PET imaging. Physics in Medicine and Biology, 2012, 57, 1675-1684.	3.0	30
39	A finite element method for the determination of the relative response of ionization chambers in MR-linacs: simulation and experimental validation up to 1.5 T. Physics in Medicine and Biology, 2019, 64, 135011.	3.0	30
40	Personalized precision radiotherapy by integration of multi-parametric functional and biological imaging in prostate cancer: A feasibility study. Zeitschrift Fur Medizinische Physik, 2017, 27, 21-30.	1.5	29
41	Radiogenomics in head and neck cancer: correlation of radiomic heterogeneity and somatic mutations in TP53, FAT1 and KMT2D. Strahlentherapie Und Onkologie, 2019, 195, 771-779.	2.0	29
42	Combined PET/MR Imaging Using 68Ga-DOTATOC for Radiotherapy Treatment Planning in Meningioma Patients. Recent Results in Cancer Research, 2013, 194, 425-439.	1.8	28
43	Imaging-Based Treatment Adaptation in Radiation Oncology. Journal of Nuclear Medicine, 2015, 56, 1922-1929.	5.0	27
44	Comparison of DCE-MRI kinetic parameters and FMISO-PET uptake parameters in head and neck cancer patients. Medical Physics, 2017, 44, 2358-2368.	3.0	27
45	Retrospective analysis of fractionated intensity-modulated radiotherapy (IMRT) in the interdisciplinary management of primary optic nerve sheath meningiomas. Radiation Oncology, 2019, 14, 240.	2.7	25
46	Analysis of pairwise correlations in multi-parametric PET/MR data for biological tumor characterization and treatment individualization strategies. European Journal of Nuclear Medicine and Molecular Imaging, 2016, 43, 1199-1208.	6.4	24
47	Comparison of treatment plans for aÂhigh-field MRI-linac and aÂconventional linac for esophageal cancer. Strahlentherapie Und Onkologie, 2019, 195, 327-334.	2.0	24
48	Geometric analysis of loco-regional recurrences in relation to pre-treatment hypoxia in patients with head and neck cancer. Acta OncolÃ³gica, 2017, 56, 1571-1576.	1.8	23
49	First experience of autonomous, un-supervised treatment planning integrated in adaptive MR-guided radiotherapy and delivered to a patient with prostate cancer. Radiotherapy and Oncology, 2021, 159, 197-201.	0.6	23
50	Robustness of quantitative hypoxia PET image analysis for predicting local tumor control. Acta OncolÃ³gica, 2015, 54, 1364-1369.	1.8	22
51	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.	2.9	22
52	Professional quality of life and burnout amongst radiation oncologists: The impact of alexithymia and empathy. Radiotherapy and Oncology, 2020, 147, 162-168.	0.6	22
53	Daily Intravoxel Incoherent Motion (IVIM) In Prostate Cancer Patients During MR-Guided Radiotherapyâ€"A Multicenter Study. Frontiers in Oncology, 2021, 11, 705964.	2.8	22
54	Dose escalation to hypoxic subvolumes in head and neck cancer: A randomized phase II study using dynamic [18F]FMISO PET/CT. Radiotherapy and Oncology, 2022, 171, 30-36.	0.6	22

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55	Biologically adapted radiation therapy. Zeitschrift Fur Medizinische Physik, 2018, 28, 177-183.	1.5	21
56	Integration of quantitative imaging biomarkers in clinical trials for MR-guided radiotherapy: Conceptual guidance for multicentre studies from the MR-Linac Consortium Imaging Biomarker Working Group. European Journal of Cancer, 2021, 153, 64-71.	2.8	21
57	Overlap of highly FDG-avid and FMISO hypoxic tumor subvolumes in patients with head and neck cancer. Acta OncolÃ³gica, 2017, 56, 1577-1582.	1.8	20
58	Quality assurance of IMRT treatment plans for a 1.5 T MR-linac using a 2D ionization chamber array and a static solid phantom. Physics in Medicine and Biology, 2020, 65, 16NT01.	3.0	20
59	Multiple training interventions significantly improve reproducibility of PET/CT-based lung cancer radiotherapy target volume delineation using an IAEA study protocol. Radiotherapy and Oncology, 2016, 121, 39-45.	0.6	19
60	Development and validation of a 1.5ÂT MRâ€Linac full accelerator head and cryostat model for Monte Carlo dose simulations. Medical Physics, 2019, 46, 5304-5313.	3.0	19
61	Value of PET imaging for radiation therapy. Strahlentherapie Und Onkologie, 2021, 197, 1-23.	2.0	16
62	Correlation between tumor oxygenation and18F-fluoromisonidazole PET data simulated based on microvessel images. Acta OncolÃ³gica, 2013, 52, 1308-1313.	1.8	15
63	Precision of T2 TSE MRI-CT-image fusions based on gold fiducials and repetitive T2 TSE MRI-MRI-fusions for adaptive IGRT of prostate cancer by using phantom and patient data. Acta OncolÃ³gica, 2019, 58, 88-94.	1.8	15
64	Prospective Image Quality and Lesion Assessment in the Setting of MR-Guided Radiation Therapy of Prostate Cancer on an MR-Linac at 1.5 T: A Comparison to a Standard 3 T MRI. Cancers, 2021, 13, 1533.	3.7	14
65	Automatic 3D Monte-Carlo-based secondary dose calculation for online verification of 1.5â€T magnetic resonance imaging guided radiotherapy. Physics and Imaging in Radiation Oncology, 2021, 19, 6-12.	2.9	14
66	Analysis of the rigid and deformable component of setup inaccuracies on portal images in head and neck radiotherapy. Physics in Medicine and Biology, 2007, 52, 5721-5733.	3.0	13
67	Quantitative Imaging for Radiation Oncology. International Journal of Radiation Oncology Biology Physics, 2018, 102, 683-686.	0.8	13
68	1.5ÂT MR-linac planning study to compare two different strategies of rectal boost irradiation. Clinical and Translational Radiation Oncology, 2021, 26, 86-91.	1.7	13
69	Distortion correction of diffusion-weighted magnetic resonance imaging of the head and neck in radiotherapy position. Acta OncolÃ³gica, 2017, 56, 1659-1663.	1.8	12
70	A novel approach for radiotherapy dose escalation in rectal cancer using online MR-guidance and rectal ultrasound gel filling â€“ Rationale and first in human. Radiotherapy and Oncology, 2021, 164, 37-42.	0.6	12
71	The role of alexithymia and empathy on radiation therapistsâ€™ professional quality of life. Technical Innovations and Patient Support in Radiation Oncology, 2020, 15, 29-36.	1.9	11
72	Simulation CT-based radiomics for prediction of response after neoadjuvant chemo-radiotherapy in patients with locally advanced rectal cancer. Radiation Oncology, 2022, 17, 84.	2.7	11

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73	Automatic VMAT planning for post-operative prostate cancer cases using particle swarm optimization: A proof of concept study. Physica Medica, 2020, 69, 101-109.	0.7	10
74	Voxel-wise correlation of functional imaging parameters in HNSCC patients receiving PET/MRI in an irradiation setup. Strahlentherapie Und Onkologie, 2018, 194, 719-726.	2.0	9
75	PET/MRI and genetic intrapatient heterogeneity in head and neck cancers. Strahlentherapie Und Onkologie, 2020, 196, 542-551.	2.0	8
76	Influence of a transverse magnetic field on the dose deposited by a 6 MV linear accelerator. Current Directions in Biomedical Engineering, 2017, 3, 281-285.	0.4	7
77	Imaging science and development in modern high-precision radiotherapy. Physics and Imaging in Radiation Oncology, 2019, 12, 63-66.	2.9	7
78	Clinical evaluation of autonomous, unsupervised planning integrated in MR-guided radiotherapy for prostate cancer. Radiotherapy and Oncology, 2022, 168, 229-233.	0.6	7
79	Combined PET/CT for IMRT treatment planning of NSCLC: Contrast-enhanced CT images for Monte Carlo dose calculation. Physica Medica, 2013, 29, 644-649.	0.7	6
80	FDG and Beyond. Recent Results in Cancer Research, 2016, 198, 163-173.	1.8	6
81	Adapting training for medical physicists to match future trends in radiation oncology. Physics and Imaging in Radiation Oncology, 2019, 11, 71-75.	2.9	6
82	Single-fraction magnetic resonance guided stereotactic radiotherapy â€“ A game changer?. Physics and Imaging in Radiation Oncology, 2020, 14, 95-96.	2.9	6
83	Professional practice changes in radiotherapy physics during the COVID-19 pandemic. Physics and Imaging in Radiation Oncology, 2021, 19, 25-32.	2.9	5
84	Experimental determination of magnetic field correction factors for ionization chambers in parallel and perpendicular orientations. Physics in Medicine and Biology, 2020, 65, 245044.	3.0	5
85	Target miss using PTV-based IMRT compared to robust optimization via coverage probability concept in prostate cancer. Acta OncolÃ³gica, 2020, 59, 911-917.	1.8	5
86	Hypoxia PET imaging techniques: data acquisition and analysis. Clinical and Translational Imaging, 2017, 5, 489-496.	2.1	3
87	Future directions on the merge of quantitative imaging and artificial intelligence in radiation oncology. Physics and Imaging in Radiation Oncology, 2020, 15, 44-45.	2.9	3
88	Influence of beam quality on reference dosimetry correction factors in magnetic resonance guided radiation therapy. Physics and Imaging in Radiation Oncology, 2020, 16, 95-98.	2.9	3
89	Comparison of patient stratification by computed tomography radiomics and hypoxia positron emission tomography in head-and-neck cancer radiotherapy. Physics and Imaging in Radiation Oncology, 2020, 15, 52-59.	2.9	2
90	Value of PET imaging for radiation therapy. Nuklearmedizin - NuclearMedicine, 2021, 60, 326-343.	0.7	2

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91	Prospective evaluation of probabilistic dose-escalated IMRT in prostate cancer. Radiology and Oncology, 2020, 55, 88-96.	1.7	2
92	Five years, 20 volumes and 300 publications of Physics and Imaging in Radiation Oncology. Physics and Imaging in Radiation Oncology, 2022, 21, 123-125.	2.9	2
93	In reply to M. Witte: Commenting â€˜Multi-modality functional image guided dose escalation in the presence of uncertaintiesâ€™. Radiotherapy and Oncology, 2015, 115, 150.	0.6	1
94	Longitudinal multi-parametric imaging in radiation oncology: boon or bane?. Acta OncolÃ³gica, 2017, 56, 501-502.	1.8	1
95	Optimal orientation for ionization chambers in MRgRT reference dosimetry. Current Directions in Biomedical Engineering, 2017, 3, 273-275.	0.4	1
96	Experimental analysis of correction factors for reference dosimetry in a magnetic field. Current Directions in Biomedical Engineering, 2017, 3, 803-805.	0.4	1
97	Automatic replanning of VMAT plans for different treatment machines: AÂtemplate-based approach using constrained optimization. Strahlentherapie Und Onkologie, 2018, 194, 921-928.	2.0	1
98	Radiotherapy Target Volume Definition Based on PET/CT Imaging Data. Medical Radiology, 2020, , 81-89.	0.1	0