Jan Unkelbach

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

71 papers	1,962 citations	22 h-index	43 g-index
77 ext. papers	2,426 ext. citations	3.6 avg, IF	5.08 L-index

#	Paper	IF	Citations
71	Detailed patient-individual reporting of lymph node involvement in oropharyngeal squamous cell carcinoma with an online interface.. *Radiotherapy and Oncology*, **2022**,	5.3	1
70	Fully automatic classification of automated breast ultrasound (ABUS) imaging according to BI-RADS using a deep convolutional neural network.. *European Radiology*, **2022**, 1	8	1
69	Radiation-induced lymphopenia does not impact treatment efficacy in a mouse tumor model. *Neoplasia*, **2022**, 31, 100812	6.4	0
68	Quantification of the spatial distribution of primary tumors in the lung to develop new prognostic biomarkers for locally advanced NSCLC. *Scientific Reports*, **2021**, 11, 20890	4.9	1
67	An approach for estimating dosimetric uncertainties in deformable dose accumulation in pencil beam scanning proton therapy for lung cancer. *Physics in Medicine and Biology*, **2021**, 66,	3.8	3
66	Benefit of replanning in MR-guided online adaptive radiation therapy in the treatment of liver metastasis. *Radiation Oncology*, **2021**, 16, 84	4.2	7
65	Response to the Letter to the Editor "Application of the RATING score: In regards to Hansen et al.". *Radiotherapy and Oncology*, **2021**, 158, 311	5.3	
64	Robust dose-painting-by-numbers vs. nonselective dose escalation for non-small cell lung cancer patients. *Medical Physics*, **2021**, 48, 3096-3108	4.4	1
63	A hidden Markov model for lymphatic tumor progression in the head and neck. *Scientific Reports*, **2021**, 11, 12261	4.9	4
62	Joint optimization of radiotherapy treatments involving multiple radiation modalities. *IEEE Transactions on Radiation and Plasma Medical Sciences*, **2021**, 1-1	4.2	0
61	Optimal Allocation of Proton Therapy Slots in Combined Proton-Photon Radiation Therapy. *International Journal of Radiation Oncology Biology Physics*, **2021**, 111, 196-207	4	2
60	Joint Optimization of Photon-Carbon Ion Treatments for Glioblastoma. *International Journal of Radiation Oncology Biology Physics*, **2021**, 111, 559-572	4	0
59	Comparison of robust to standardized CT radiomics models to predict overall survival for non-small cell lung cancer patients. *Medical Physics*, **2020**, 47, 4045-4053	4.4	7
58	Privacy-preserving distributed learning of radiomics to predict overall survival and HPV status in head and neck cancer. *Scientific Reports*, **2020**, 10, 4542	4.9	23
57	Combined proton-photon treatments - A new approach to proton therapy without a gantry. *Radiotherapy and Oncology*, **2020**, 145, 81-87	5.3	7
56	Probing spatiotemporal fractionation on the preclinical level. *Physics in Medicine and Biology*, **2020**, 65, 22NT02	3.8	1
55	Accounting for Range Uncertainties in the Optimization of Combined Proton-Photon Treatments Via Stochastic Optimization. *International Journal of Radiation Oncology Biology Physics*, **2020**, 108, 792-801	4	2

54	Radiotherapy Treatment plannINg study Guidelines (RATING): A framework for setting up and reporting on scientific treatment planning studies. *Radiotherapy and Oncology*, **2020**, 153, 67-78	5.3	22
53	The role of computational methods for automating and improving clinical target volume definition. *Radiotherapy and Oncology*, **2020**, 153, 15-25	5.3	11
52	Radiomics Feature Activation Maps as a New Tool for Signature Interpretability. *Frontiers in Oncology*, **2020**, 10, 578895	5.3	3
51	Roadmap: proton therapy physics and biology. *Physics in Medicine and Biology*, **2020**,	3.8	17
50	Interchangeability of radiomic features between [18F]-FDG PET/CT and [18F]-FDG PET/MR. *Medical Physics*, **2019**, 46, 1677-1685	4.4	17
49	A Bayesian network model of lymphatic tumor progression for personalized elective CTV definition in head and neck cancers. *Physics in Medicine and Biology*, **2019**, 64, 165003	3.8	6
48	Robust spatiotemporal fractionation schemes in the presence of patient setup uncertainty. *Medical Physics*, **2019**, 46, 2988-3000	4.4	2
47	Dosimetric comparison of protons vs photons in re-irradiation of intracranial meningioma. *British Journal of Radiology*, **2019**, 92, 20190113	3.4	3
46	ELPHA: Dynamically deformable liver phantom for real-time motion-adaptive radiotherapy treatments. *Medical Physics*, **2019**, 46, 839-850	4.4	9
45	Optimization of combined proton-photon treatments. *Radiotherapy and Oncology*, **2018**, 128, 133-138	5.3	14
44	Optimizing highly noncoplanar VMAT trajectories: the NoVo method. *Physics in Medicine and Biology*, **2018**, 63, 025023	3.8	12
43	Optimization of spatiotemporally fractionated radiotherapy treatments with bounds on the achievable benefit. *Physics in Medicine and Biology*, **2018**, 63, 015036	3.8	7
42	Robust Proton Treatment Planning: Physical and Biological Optimization. *Seminars in Radiation Oncology*, **2018**, 28, 88-96	5.5	57
41	Derivation of mean dose tolerances for new fractionation schemes and treatment modalities. *Physics in Medicine and Biology*, **2018**, 63, 035038	3.8	3
40	Robust radiotherapy planning. *Physics in Medicine and Biology*, **2018**, 63, 22TR02	3.8	75
39	Spatiotemporal fractionation schemes for liver stereotactic body radiotherapy. *Radiotherapy and Oncology*, **2017**, 125, 357-364	5.3	9
38	Comparison of PET and CT radiomics for prediction of local tumor control in head and neck squamous cell carcinoma. *Acta Oncologica*, **2017**, 56, 1531-1536	3.2	85
37	Post-radiochemotherapy PET radiomics in head and neck cancer - The influence of radiomics implementation on the reproducibility of local control tumor models. *Radiotherapy and Oncology*, **2017**, 125, 385-391	5.3	64

36	Personalized Radiotherapy Planning Based on a Computational Tumor Growth Model. *IEEE Transactions on Medical Imaging*, **2017**, 36, 815-825	11.7	27
35	Volumetric relationship between 2-hydroxyglutarate and FLAIR hyperintensity has potential implications for radiotherapy planning of mutant IDH glioma patients. *Neuro-Oncology*, **2016**, 18, 1569-1578	7	23
34	Accelerated iterative beam angle selection in IMRT. *Medical Physics*, **2016**, 43, 1073-82	4.4	12
33	MRI Based Bayesian Personalization of a Tumor Growth Model. *IEEE Transactions on Medical Imaging*, **2016**, 35, 2329-2339	11.7	20
32	Sampling image segmentations for uncertainty quantification. *Medical Image Analysis*, **2016**, 34, 42-51	15.4	17
31	Spatiotemporal Fractionation Schemes for Irradiating Large Cerebral Arteriovenous Malformations. *International Journal of Radiation Oncology Biology Physics*, **2016**, 95, 1067-1074	4	11
30	Reoptimization of Intensity Modulated Proton Therapy Plans Based on Linear Energy Transfer. *International Journal of Radiation Oncology Biology Physics*, **2016**, 96, 1097-1106	4	101
29	A modular approach to intensity-modulated arc therapy optimization with noncoplanar trajectories. *Physics in Medicine and Biology*, **2015**, 60, 5179-98	3.8	31
28	Optimization approaches to volumetric modulated arc therapy planning. *Medical Physics*, **2015**, 42, 1367-77	4.4	41
27	The emergence of nonuniform spatiotemporal fractionation schemes within the standard BED model. *Medical Physics*, **2015**, 42, 2234-41	4.4	18
26	A mathematical programming approach to the fractionation problem in chemoradiotherapy. *IIE Transactions on Healthcare Systems Engineering*, **2015**, 5, 55-73		5
25	Degradation of proton depth dose distributions attributable to microstructures in lung-equivalent material. *Medical Physics*, **2015**, 42, 6425-32	4.4	22
24	Optimization of Radiation Therapy Fractionation Schedules in the Presence of Tumor Repopulation. *INFORMS Journal on Computing*, **2015**, 27, 788-803	2.4	18
23	Bayesian Personalization of Brain Tumor Growth Model. *Lecture Notes in Computer Science*, **2015**, 424-432	0.9	5
22	GPSSI: Gaussian Process for Sampling Segmentations of Images. *Lecture Notes in Computer Science*, **2015**, 38-46	0.9	3
21	Plan averaging for multicriteria navigation of sliding window IMRT and VMAT. *Medical Physics*, **2014**, 41, 021709	4.4	8
20	Radiotherapy planning for glioblastoma based on a tumor growth model: improving target volume delineation. *Physics in Medicine and Biology*, **2014**, 59, 747-70	3.8	45
19	Radiotherapy planning for glioblastoma based on a tumor growth model: implications for spatial dose redistribution. *Physics in Medicine and Biology*, **2014**, 59, 771-89	3.8	27

18	Exploiting tumor shrinkage through temporal optimization of radiotherapy. *Physics in Medicine and Biology*, **2014**, 59, 3059-79	3.8	7
17	Shared data for intensity modulated radiation therapy (IMRT) optimization research: the CORT dataset. *GigaScience*, **2014**, 3, 37	7.6	51
16	Direct leaf trajectory optimization for volumetric modulated arc therapy planning with sliding window delivery. *Medical Physics*, **2014**, 41, 011701	4.4	38
15	The dependence of optimal fractionation schemes on the spatial dose distribution. *Physics in Medicine and Biology*, **2013**, 58, 159-67	3.8	40
14	A column-generation-based method for multi-criteria direct aperture optimization. *Physics in Medicine and Biology*, **2013**, 58, 621-39	3.8	20
13	Use of Diffusion Tensor Images in Glioma Growth Modeling for Radiotherapy Target Delineation. *Lecture Notes in Computer Science*, **2013**, 63-73	0.9	2
12	Simultaneous optimization of dose distributions and fractionation schemes in particle radiotherapy. *Medical Physics*, **2013**, 40, 091702	4.4	22
11	From analytic inversion to contemporary IMRT optimization: radiation therapy planning revisited from a mathematical perspective. *Physica Medica*, **2012**, 28, 109-18	2.7	9
10	Visualization of a variety of possible dosimetric outcomes in radiation therapy using dose-volume histogram bands. *Practical Radiation Oncology*, **2012**, 2, 164-171	2.8	40
9	Including robustness in multi-criteria optimization for intensity-modulated proton therapy. *Physics in Medicine and Biology*, **2012**, 57, 591-608	3.8	138
8	Treatment-Planning Optimization. *Series in Medical Physics and Biomedical Engineering*, **2011**, 461-488		1
7	Reducing the sensitivity of IMPT treatment plans to setup errors and range uncertainties via probabilistic treatment planning. *Medical Physics*, **2009**, 36, 149-63	4.4	217
6	Incorporating uncertainties in respiratory motion into 4D treatment plan optimization. *Medical Physics*, **2009**, 36, 3059-71	4.4	28
5	An EM Based Training Algorithm for Recurrent Neural Networks. *Lecture Notes in Computer Science*, **2009**, 964-974	0.9	2
4	The role of medical physicists and the AAPM in the development of treatment planning and optimization. *Medical Physics*, **2008**, 35, 4911-23	4.4	11
3	Accounting for range uncertainties in the optimization of intensity modulated proton therapy. *Physics in Medicine and Biology*, **2007**, 52, 2755-73	3.8	342
2	Online correction for respiratory motion: evaluation of two different imaging geometries. *Physics in Medicine and Biology*, **2005**, 50, 4087-96	3.8	47
1	Incorporating organ movements in IMRT treatment planning for prostate cancer: minimizing uncertainties in the inverse planning process. *Medical Physics*, **2005**, 32, 2471-83	4.4	35