Sebastiaan Breedveld

List of Publications by Year
in descending order

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57	1,834	257101 24	264894 42
papers	citations	h-index	g-index

58	58	58	1109
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	iCycle: Integrated, multicriterial beam angle, and profile optimization for generation of coplanar and noncoplanar IMRT plans. Medical Physics, 2012, 39, 951-963.	1.6	256
2	Toward Fully Automated Multicriterial Plan Generation: A Prospective Clinical Study. International Journal of Radiation Oncology Biology Physics, 2013, 85, 866-872.	0.4	128
3	Fully Automated Volumetric Modulated Arc Therapy Plan Generation for Prostate Cancer Patients. International Journal of Radiation Oncology Biology Physics, 2014, 88, 1175-1179.	0.4	115
4	The equivalence of multi-criteria methods for radiotherapy plan optimization. Physics in Medicine and Biology, 2009, 54, 7199-7209.	1.6	99
5	A novel approach to multi-criteria inverse planning for IMRT. Physics in Medicine and Biology, 2007, 52, 6339-6353.	1.6	97
6	Comparison of VMAT and IMRT strategies for cervical cancer patients using automated planning. Radiotherapy and Oncology, 2015, 114, 395-401.	0.3	80
7	Fully automated, multi-criterial planning for Volumetric Modulated Arc Therapy â€“ An international multi-center validation for prostate cancer. Radiotherapy and Oncology, 2018, 128, 343-348.	0.3	62
8	On the beam direction search space in computerized non-coplanar beam angle optimization for IMRTâ€”prostate SBRT. Physics in Medicine and Biology, 2012, 57, 5441-5458.	1.6	56
9	Multi-criteria optimization and decision-making in radiotherapy. European Journal of Operational Research, 2019, 277, 1-19.	3.5	55
10	Validation of Fully Automated VMAT Plan Generation for Library-Based Plan-of-the-Day Cervical Cancer Radiotherapy. PLoS ONE, 2016, 11, e0169202.	1.1	55
11	Integrated multicriterial optimization of beam angles and intensity profiles for coplanar and noncoplanar head and neck IMRT and implications for VMAT. Medical Physics, 2012, 39, 4858-4865.	1.6	51
12	Dose prediction with deep learning for prostate cancer radiation therapy: Model adaptation to different treatment planning practices. Radiotherapy and Oncology, 2020, 153, 228-235.	0.3	45
13	Fast, multiple optimizations of quadratic dose objective functions in IMRT. Physics in Medicine and Biology, 2006, 51, 3569-3579.	1.6	39
14	Near real-time automated dose restoration in IMPT to compensate for daily tissue density variations in prostate cancer. Physics in Medicine and Biology, 2017, 62, 4254-4272.	1.6	37
15	Impact of model and dose uncertainty on model-based selection of oropharyngeal cancer patients for proton therapy. Acta OncolÃ³gica, 2017, 56, 1444-1450.	0.8	33
16	Automated volumetric modulated arc therapy planning for whole pelvic prostate radiotherapy. Strahlentherapie Und Onkologie, 2018, 194, 333-342.	1.0	32
17	An automated planning strategy for near real-time adaptive proton therapy in prostate cancer. Physics in Medicine and Biology, 2018, 63, 135017.	1.6	32
18	Variable Circular Collimator in Robotic Radiosurgery: A Time-Efficient Alternative to a Mini-Multileaf Collimator?. International Journal of Radiation Oncology Biology Physics, 2011, 81, 863-870.	0.4	29

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19	Data for TROTS â€“ The Radiotherapy Optimisation Test Set. Data in Brief, 2017, 12, 143-149.	0.5	29
20	Fully automated treatment planning of spinal metastases â€“ A comparison to manual planning of Volumetric Modulated Arc Therapy for conventionally fractionated irradiation. Radiation Oncology, 2017, 12, 33.	1.2	28
21	The impact of treatment accuracy on proton therapy patient selection for oropharyngeal cancer patients. Radiotherapy and Oncology, 2017, 125, 520-525.	0.3	26
22	Automated generation of IMRT treatment plans for prostate cancer patients with metal hip prostheses: Comparison of different planning strategies. Medical Physics, 2013, 40, 071704.	1.6	25
23	An interior-point implementation developed and tuned for radiation therapy treatment planning. Computational Optimization and Applications, 2017, 68, 209-242.	0.9	25
24	VMAT plus a few computer-optimized non-coplanar IMRT beams (VMAT+) tested for liver SBRT. Radiotherapy and Oncology, 2017, 123, 49-56.	0.3	24
25	First fully automated planning solution for robotic radiosurgery â€“ comparison with automatically planned volumetric arc therapy for prostate cancer. Acta OncolÃ³gica, 2018, 57, 1490-1498.	0.8	24
26	Pre-clinical validation of a novel system for fully-automated treatment planning. Radiotherapy and Oncology, 2021, 158, 253-261.	0.3	24
27	Evaluation of plan quality assurance models for prostate cancer patients based on fully automatically generated Pareto-optimal treatment plans. Physics in Medicine and Biology, 2016, 61, 4268-4282.	1.6	23
28	Adaptive Liver Stereotactic Body Radiation Therapy: Automated Daily Plan Reoptimization Prevents Dose Delivery Degradation Caused by Anatomy Deformations. International Journal of Radiation Oncology Biology Physics, 2013, 87, 1016-1021.	0.4	21
29	Fast and fully-automated multi-criterial treatment planning for adaptive HDR brachytherapy for locally advanced cervical cancer. Radiotherapy and Oncology, 2020, 148, 143-150.	0.3	20
30	Lexicographic extension of the reference point method applied in radiation therapy treatment planning. European Journal of Operational Research, 2017, 263, 247-257.	3.5	19
31	Fast and fuzzy multi-objective radiotherapy treatment plan generation for head and neck cancer patients with the lexicographic reference point method (LRPM). Physics in Medicine and Biology, 2017, 62, 4318-4332.	1.6	18
32	Automated VMAT planning for postoperative adjuvant treatment of advanced gastric cancer. Radiation Oncology, 2018, 13, 74.	1.2	18
33	Fast automated multi-criteria planning for HDR brachytherapy explored for prostate cancer. Physics in Medicine and Biology, 2019, 64, 205002.	1.6	18
34	First system for fully-automated multi-criterial treatment planning for a high-magnetic field MR-Linac applied to rectal cancer. Acta OncolÃ³gica, 2020, 59, 926-932.	0.8	17
35	Noncoplanar Beam Angle Class Solutions to Replace Time-Consuming Patient-Specific Beam Angle Optimization in Robotic Prostate Stereotactic Body Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2015, 92, 762-770.	0.4	16
36	Late toxicity in the randomized multicenter HYPRO trial for prostate cancer analyzed with automated treatment planning. Radiotherapy and Oncology, 2018, 128, 349-356.	0.3	16

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37	Plan-library supported automated replanning for online-adaptive intensity-modulated proton therapy of cervical cancer. Acta OncolÃ³gica, 2019, 58, 1440-1445.	0.8	16
38	Shortening treatment time in robotic radiosurgery using a novel node reduction technique. Medical Physics, 2011, 38, 1397-1405.	1.6	15
39	Individualized Selection of Beam Angles and Treatment Isocenter in Tangential Breast Intensity Modulated Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2017, 98, 447-453.	0.4	12
40	Online-adaptive versus robust IMPT for prostate cancer: How much can we gain?. Radiotherapy and Oncology, 2020, 151, 228-233.	0.3	12
41	On the Importance of Individualized, Non-Coplanar Beam Configurations in Mediastinal Lymphoma Radiotherapy, Optimized With Automated Planning. Frontiers in Oncology, 2021, 11, 619929.	1.3	9
42	Fully automated treatment planning for MLCâ€based robotic radiotherapy. Medical Physics, 2021, 48, 4139-4147.	1.6	9
43	Automated Radiotherapy Planning for Patient-Specific Exploration of the Trade-Off Between Tumor Dose Coverage and Predicted Radiation-Induced Toxicityâ€"A Proof of Principle Study for Prostate Cancer. Frontiers in Oncology, 2020, 10, 943.	1.3	8
44	Enhancing Radiotherapy for Locally Advanced Non-Small Cell Lung Cancer Patients with iCE, a Novel System for Automated Multi-Criterial Treatment Planning Including Beam Angle Optimization. Cancers, 2021, 13, 5683.	1.7	8
45	Automatically configuring the reference point method for automated multi-objective treatment planning. Physics in Medicine and Biology, 2019, 64, 035002.	1.6	7
46	MR-Linac Radiotherapy â€“ The Beam Angle Selection Problem. Frontiers in Oncology, 2021, 11, 717681.	1.3	7
47	Automated prioritised 3D dose-based MLC segment generation for step-and-shoot IMRT. Physics in Medicine and Biology, 2019, 64, 165013.	1.6	6
48	Individualized automated planning for dose bath reduction in robotic radiosurgery for benign tumors. PLoS ONE, 2019, 14, e0210279.	1.1	5
49	Reducing the Risk of Secondary Lung Cancer in Treatment Planning of Accelerated Partial Breast Irradiation. Frontiers in Oncology, 2020, 10, 1445.	1.3	5
50	TBS-BAO: fully automated beam angle optimization for IMRT guided by a total-beam-space reference plan. Physics in Medicine and Biology, 2022, 67, 035004.	1.6	5
51	Accurate 3D-dose-based generation of MLC segments for robotic radiotherapy. Physics in Medicine and Biology, 2020, 65, 175011.	1.6	4
52	Complementing Prostate SBRT VMAT With a Two-Beam Non-Coplanar IMRT Class Solution to Enhance Rectum and Bladder Sparing With Minimum Increase in Treatment Time. Frontiers in Oncology, 2021, 11, 620978.	1.3	4
53	Automatic configuration of the reference point method for fully automated multiâ€objective treatment planning applied to oropharyngeal cancer. Medical Physics, 2020, 47, 1499-1508.	1.6	3
54	Robust doseâ€paintingâ€byâ€numbers vs. nonselective dose escalation for nonâ€small cell lung cancer patients. Medical Physics, 2021, 48, 3096-3108.	1.6	3

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55	Fast and exact Hessian computation for a class of nonlinear functions used in radiation therapy treatment planning. Physics in Medicine and Biology, 2019, 64, 16NT01.	1.6	2
56	Automated multi-criterial planning with beam angle optimization to establish non-coplanar VMAT class solutions for nasopharyngeal carcinoma. Physica Medica, 2022, 101, 20-27.	0.4	2
57	Evaluation of alternative parameter settings for dose restoration and full plan adaptation in IMPT for prostate cancer. Physica Medica, 2021, 92, 15-23.	0.4	0