Martin Bues

List of Publications by Year
in descending order

64 papers	1,641 citations	304743 22 h-index	315739 38 g-index
66 all docs	66 docs citations	66 times ranked	1052 citing authors

#	Article	IF	Citations
1	Perâ€voxel constraints to minimize hot spots in linear energy transferâ€guided robust optimization for base of skull head and neck cancer patients in IMPT. Medical Physics, 2022, 49, 632-647.	3.0	12
2	Implementation of Photon Treatment Back-up Workflow at a High-Volume Proton Center: Safety, Quality, and Patient Considerations. Practical Radiation Oncology, 2022, 12, e453-e459.	2.1	0
3	Empirical Relative Biological Effectiveness (RBE) for Mandible Osteoradionecrosis (ORN) in Head and Neck Cancer Patients Treated With Pencil-Beam-Scanning Proton Therapy (PBSPT): A Retrospective, Case-Matched Cohort Study. Frontiers in Oncology, 2022, 12, 843175.	2.8	13
4	Technical note: Evaluation and second check of a commercial Monte Carlo dose engine for smallâ€field apertures in pencil beam scanning proton therapy. Medical Physics, 2022, 49, 3497-3506.	3.0	8
5	GPUâ€accelerated Monte Carloâ€based online adaptive proton therapy: A feasibility study. Medical Physics, 2022, 49, 3550-3563.	3.0	10
6	Clinical commissioning of intensityâ€modulated proton therapy systems: Report of AAPM Task Group 185. Medical Physics, 2021, 48, e1-e30.	3.0	23
7	Feasibility of using megavoltage computed tomography to reduce proton range uncertainty: A simulation study. Journal of Applied Clinical Medical Physics, 2021, 22, 131-140.	1.9	2
8	Consensus Statement on Proton Therapy in Mesothelioma. Practical Radiation Oncology, 2021, 11, 119-133.	2.1	11
9	A Critical Review of LET-Based Intensity-Modulated Proton Therapy Plan Evaluation and Optimization for Head and Neck Cancer Management. International Journal of Particle Therapy, 2021, 8, 36-49.	1.8	27
10	Innovations and the Use of Collimators in the Delivery of Pencil Beam Scanning Proton Therapy. International Journal of Particle Therapy, 2021, 8, 73-83.	1.8	9
11	Exploratory Investigation of Dose-Linear Energy Transfer (LET) Volume Histogram (DLVH) for Adverse Events Study in Intensity Modulated Proton Therapy (IMPT). International Journal of Radiation Oncology Biology Physics, 2021, 110, 1189-1199.	0.8	15
12	Technical Note: Multiple energy extraction techniques for synchrotronâ€based proton delivery systems may exacerbate motion interplay effects in lung cancer treatments. Medical Physics, 2021, 48, 4812-4823.	3.0	1
13	Clinical modeling and validation of breast tissue expander metallic ports in a commercial treatment planning system for proton therapy. Medical Physics, 2021, 48, 7512-7525.	3.0	2
14	Technical Note: Longâ€term monitoring of diode sensitivity degradation induced by proton irradiation. Medical Physics, 2021, 48, 6634-6641.	3.0	0
15	Hybrid 3D analytical linear energy transfer calculation algorithm based on precalculated data from Monte Carlo simulations. Medical Physics, 2020, 47, 745-752.	3.0	20
16	Intensityâ€modulated proton therapy (IMPT) interplay effect evaluation of asymmetric breathing with simultaneous uncertainty considerations in patients with nonâ€small cell lung cancer. Medical Physics, 2020, 47, 5428-5440.	3.0	20
17	Technical Note: Integrating an open source Monte Carlo code â€œMCsquareâ€• for clinical use in intensityâ€modulated proton therapy. Medical Physics, 2020, 47, 2558-2574.	3.0	34
18	Robust Optimization for Intensity Modulated Proton Therapy to Redistribute High Linear Energy Transfer from Nearby Critical Organs to Tumors in Head and Neck Cancer. International Journal of Radiation Oncology Biology Physics, 2020, 107, 181-193.	0.8	43

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19	Technical Note: Comprehensive evaluation and implementation of two independent methods for beam monitor calibration for proton scanning beam. Medical Physics, 2019, 46, 5867-5875.	3.0	7
20	Technical Note: Treatment planning system (TPS) approximations matter â€” comparing intensityâ€modulated proton therapy (IMPT) plan quality and robustness between a commercial and an inâ€house developed TPS for nonsmall cell lung cancer (NSCLC). Medical Physics, 2019, 46, 4755-4762.	3.0	19
21	Impact of planned dose reporting methods on Gamma pass rates for IROC lung and liver motion phantoms treated with pencil beam scanning protons. Radiation Oncology, 2019, 14, 108.	2.7	4
22	Dosimetric comparison of distal esophageal carcinoma plans for patients treated with smallâ€spot intensityâ€modulated proton versus volumetricâ€modulated arc therapies. Journal of Applied Clinical Medical Physics, 2019, 20, 15-27.	1.9	40
23	Individual Field Simultaneous Optimization (IFSO) in spot scanning proton therapy of head and neck cancers. Medical Dosimetry, 2019, 44, 375-378.	0.9	9
24	Clinical Validation of a Ray-Casting Analytical Dose Engine for Spot Scanning Proton Delivery Systems. Technology in Cancer Research and Treatment, 2019, 18, 153303381988718.	1.9	15
25	A novel and individualized robust optimization method using normalized dose interval volume constraints (<scp>NDIVC</scp>) for intensityâ€modulated proton radiotherapy. Medical Physics, 2019, 46, 382-393.	3.0	16
26	Automation of routine elements for spotâ€scanning proton patientâ€specific quality assurance. Medical Physics, 2019, 46, 5-14.	3.0	13
27	Technical Note: An efficient daily <scp>QA</scp> procedure for proton pencil beam scanning. Medical Physics, 2018, 45, 1040-1049.	3.0	15
28	Hydrogel Nanosensors for Colorimetric Detection and Dosimetry in Proton Beam Radiotherapy. ACS Applied Materials & Interfaces, 2018, 10, 3274-3281.	8.0	21
29	Impact of Spot Size and Spacing on the Quality of Robustly Optimized Intensity Modulated Proton Therapy Plans for Lung Cancer. International Journal of Radiation Oncology Biology Physics, 2018, 101, 479-489.	0.8	44
30	Multiple energy extraction reduces beam delivery time for a synchrotron-based proton spot-scanning system. Advances in Radiation Oncology, 2018, 3, 412-420.	1.2	36
31	Robust optimization in <scp>IMPT</scp> using quadratic objective functions to account for the minimum <scp>MU</scp> constraint. Medical Physics, 2018, 45, 460-469.	3.0	34
32	Real-Time Tumor Tracking for Pencil Beam Scanning Proton Therapy. , 2018, , .		1
33	Advantages of intensity modulated proton therapy during hippocampal avoidance whole brain radiation therapy. Physics and Imaging in Radiation Oncology, 2018, 8, 28-32.	2.9	11
34	Smallâ€spot intensityâ€modulated proton therapy and volumetricâ€modulated arc therapies for patients with locally advanced nonâ€smallâ€cell lung cancer: A dosimetric comparative study. Journal of Applied Clinical Medical Physics, 2018, 19, 140-148.	1.9	32
35	Technical Note: Using dual step wedge and 2D scintillator to achieve highly precise and robust proton range quality assurance. Medical Physics, 2018, 45, 2947-2951.	3.0	4
36	Exploratory study of the association of volumetric modulated arc therapy (<scp>VMAT</scp>) plan robustness with local failure in head and neck cancer. Journal of Applied Clinical Medical Physics, 2017, 18, 76-83.	1.9	39

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37	Robust treatment planning with conditional value at risk chance constraints in intensityâ€modulated proton therapy. Medical Physics, 2017, 44, 28-36.	3.0	29
38	Robust intensityâ€modulated proton therapy to reduce high linear energy transfer in organs at risk. Medical Physics, 2017, 44, 6138-6147.	3.0	58
39	Mixed integer programming with doseâ€volume constraints in intensityâ€modulated proton therapy. Journal of Applied Clinical Medical Physics, 2017, 18, 29-35.	1.9	7
40	A novel and fast method for proton range verification using a step wedge and 2D scintillator. Medical Physics, 2017, 44, 4409-4414.	3.0	11
41	Tissue Expanders and Proton Beam Radiotherapy. Plastic and Reconstructive Surgery - Global Open, 2017, 5, e1390.	0.6	3
42	Technical Note: Using experimentally determined proton spot scanning timing parameters to accurately model beam delivery time. Medical Physics, 2017, 44, 5081-5088.	3.0	44
43	Use of a radial projection to reduce the statistical uncertainty of spot lateral profiles generated by Monte Carlo simulation. Journal of Applied Clinical Medical Physics, 2017, 18, 88-96.	1.9	6
44	Using field size factors to characterize the in-air fluence of a proton machine with a range shifter. Radiation Oncology, 2017, 12, 52.	2.7	11
45	An efficient method to determine double Gaussian fluence parameters in the <scp>eclipse</scp>â„¢ proton pencil beam model. Medical Physics, 2016, 43, 6544-6551.	3.0	18
46	Robustness quantification methods comparison in volumetric modulated arc therapy to treat head and neck cancer. Practical Radiation Oncology, 2016, 6, e269-e275.	2.1	20
47	Spot scanning proton therapy plan assessment: design and development of a dose verification application for use in routine clinical practice. Proceedings of SPIE, 2016, , .	0.8	1
48	Exploratory Study of 4D versus 3D Robust Optimization in Intensity Modulated Proton Therapy for Lung Cancer. International Journal of Radiation Oncology Biology Physics, 2016, 95, 523-533.	0.8	103
49	Clinical Implementation of a Proton Dose Verification System Utilizing a GPU Accelerated Monte Carlo Engine. International Journal of Particle Therapy, 2016, 3, 312-319.	1.8	31
50	Impact of range shifter material on proton pencil beam spot characteristics. Medical Physics, 2015, 42, 1335-1340.	3.0	34
51	Scanning proton beam therapy reduces normal tissue exposure in pelvic radiotherapy for anal cancer. Radiotherapy and Oncology, 2015, 117, 505-508.	0.6	29
52	Impact of respiratory motion on worst-case scenario optimized intensity modulated proton therapy for lung cancers. Practical Radiation Oncology, 2015, 5, e77-e86.	2.1	75
53	Comparison of two methods for minimizing the effect of delayed charge on the dose delivered with a synchrotron based discrete spot scanning proton beam. Medical Physics, 2014, 41, 081703.	3.0	1
54	Proton beam therapy for locally advanced lung cancer: A review. World Journal of Clinical Oncology, 2014, 5, 568.	2.3	28

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55	Commissioning of the discrete spot scanning proton beam delivery system at the University of Texas M.D. Anderson Cancer Center, Proton Therapy Center, Houston. Medical Physics, 2010, 37, 154-163.	3.0	236
56	The M. D. Anderson proton therapy system. Medical Physics, 2009, 36, 4068-4083.	3.0	160
57	Variations in proton scanned beam dose delivery due to uncertainties in magnetic beam steering. Medical Physics, 2009, 36, 3693-3702.	3.0	16
58	SU-FF-T-617: Configuration and Validation of a Single Gaussian Dose Model for Scanning Proton Beams. Medical Physics, 2009, 36, 2666-2666.	3.0	0
59	Efficiency of respiratory-gated delivery of synchrotron-based pulsed proton irradiation. Physics in Medicine and Biology, 2008, 53, 1947-1959.	3.0	30
60	SU-GG-T-89: Dosimetry Characteristics of the Discrete Spot Scanning Proton Beam at PTCH. Medical Physics, 2008, 35, 2746-2746.	3.0	0
61	Verification procedure for isocentric alignment of proton beams. Journal of Applied Clinical Medical Physics, 2007, 8, 65-75.	1.9	24
62	THâ€Câ€AUDâ€07: Variations in Scanned Beam Proton Therapy Doses Due to Random Magnetic Beam Steering Errors. Medical Physics, 2007, 34, 2627-2628.	3.0	0
63	Effect of random seed placement error in permanent transperineal prostate seed implant. Radiotherapy and Oncology, 2006, 79, 70-74.	0.6	20
64	Benchmarking analytical calculations of proton doses in heterogeneous matter. Medical Physics, 2005, 32, 3511-3523.	3.0	36