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	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
2	The M. D. Anderson proton therapy system. Medical Physics, 2009, 36, 4068-4083.	3.0	160
3	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
4	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
5	Robust intensity‐modulated proton therapy to reduce high linear energy transfer in organs at risk. Medical Physics, 2017, 44, 6138-6147.	3.0	58
6	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
7	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
8	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
9	Dosimetric comparison of distal esophageal carcinoma plans for patients treated with small‐spot intensity‐modulated proton versus volumetric‐modulated arc therapies. Journal of Applied Clinical Medical Physics, 2019, 20, 15-27.	1.9	40
10	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
11	Benchmarking analytical calculations of proton doses in heterogeneous matter. Medical Physics, 2005, 32, 3511-3523.	3.0	36
12	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
13	Impact of range shifter material on proton pencil beam spot characteristics. Medical Physics, 2015, 42, 1335-1340.	3.0	34
14	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
15	Technical Note: Integrating an open source Monte Carlo code â€œMCsquareâ€•for clinical use in intensity‐modulated proton therapy. Medical Physics, 2020, 47, 2558-2574.	3.0	34
16	Small‐spot intensity‐modulated proton therapy and volumetric‐modulated arc therapies for patients with locally advanced non‐small‐cell lung cancer: A dosimetric comparative study. Journal of Applied Clinical Medical Physics, 2018, 19, 140-148.	1.9	32
17	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
18	Efficiency of respiratory-gated delivery of synchrotron-based pulsed proton irradiation. Physics in Medicine and Biology, 2008, 53, 1947-1959.	3.0	30

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19	Scanning proton beam therapy reduces normal tissue exposure in pelvic radiotherapy for anal cancer. Radiotherapy and Oncology, 2015, 117, 505-508.	0.6	29
20	Robust treatment planning with conditional value at risk chance constraints in intensityâ€modulated proton therapy. Medical Physics, 2017, 44, 28-36.	3.0	29
21	Proton beam therapy for locally advanced lung cancer: A review. World Journal of Clinical Oncology, 2014, 5, 568.	2.3	28
22	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
23	Verification procedure for isocentric alignment of proton beams. Journal of Applied Clinical Medical Physics, 2007, 8, 65-75.	1.9	24
24	Clinical commissioning of intensityâ€modulated proton therapy systems: Report of AAPM Task Group 185. Medical Physics, 2021, 48, e1-e30.	3.0	23
25	Hydrogel Nanosensors for Colorimetric Detection and Dosimetry in Proton Beam Radiotherapy. ACS Applied Materials & Interfaces, 2018, 10, 3274-3281.	8.0	21
26	Effect of random seed placement error in permanent transperineal prostate seed implant. Radiotherapy and Oncology, 2006, 79, 70-74.	0.6	20
27	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
28	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
29	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
30	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
31	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
32	Variations in proton scanned beam dose delivery due to uncertainties in magnetic beam steering. Medical Physics, 2009, 36, 3693-3702.	3.0	16
33	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
34	Technical Note: An efficient daily <scp>QA</scp> procedure for proton pencil beam scanning. Medical Physics, 2018, 45, 1040-1049.	3.0	15
35	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
36	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

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37	Automation of routine elements for spot‐scanning proton patient‐specific quality assurance. Medical Physics, 2019, 46, 5-14.	3.0	13
38	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
39	Per‐voxel constraints to minimize hot spots in linear energy transfer‐guided robust optimization for base of skull head and neck cancer patients in IMPT. Medical Physics, 2022, 49, 632-647.	3.0	12
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	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
42	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
43	Consensus Statement on Proton Therapy in Mesothelioma. Practical Radiation Oncology, 2021, 11, 119-133.	2.1	11
44	GPU‐accelerated Monte Carlo‐based online adaptive proton therapy: A feasibility study. Medical Physics, 2022, 49, 3550-3563.	3.0	10
45	Individual Field Simultaneous Optimization (IFSO) in spot scanning proton therapy of head and neck cancers. Medical Dosimetry, 2019, 44, 375-378.	0.9	9
46	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
47	Technical note: Evaluation and second check of a commercial Monte Carlo dose engine for small‐field apertures in pencil beam scanning proton therapy. Medical Physics, 2022, 49, 3497-3506.	3.0	8
48	Mixed integer programming with dose‐volume constraints in intensity‐modulated proton therapy. Journal of Applied Clinical Medical Physics, 2017, 18, 29-35.	1.9	7
49	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
50	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
51	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
52	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
53	Tissue Expanders and Proton Beam Radiotherapy. Plastic and Reconstructive Surgery - Global Open, 2017, 5, e1390.	0.6	3
54	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

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55	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
56	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
57	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
58	Real-Time Tumor Tracking for Pencil Beam Scanning Proton Therapy. , 2018, , .		1
59	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
60	Technical Note: Longâ€term monitoring of diode sensitivity degradation induced by proton irradiation. Medical Physics, 2021, 48, 6634-6641.	3.0	0
61	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
62	SU-GG-T-89: Dosimetry Characteristics of the Discrete Spot Scanning Proton Beam at PTCH. Medical Physics, 2008, 35, 2746-2746.	3.0	0
63	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
64	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