

# Wei Liu

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/7629171/wei-liu-publications-by-year.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

84  
papers

1,977  
citations

24  
h-index

42  
g-index

91  
ext. papers

2,578  
ext. citations

3.1  
avg, IF

4.7  
L-index

#	Paper	IF	Citations
84	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.. <i>Frontiers in Oncology</i> , <b>2022</b> , 12, 843175	5.3	1
83	Executive Summary of Clinical and Technical Guidelines for Esophageal Cancer Proton Beam Therapy From the Particle Therapy Co-Operative Group Thoracic and Gastrointestinal Subcommittees. <i>Frontiers in Oncology</i> , <b>2021</b> , 11, 748331	5.3	0
82	Technical Note: Long-term monitoring of diode sensitivity degradation induced by proton irradiation. <i>Medical Physics</i> , <b>2021</b> , 48, 6634-6641	4.4	
81	A method for quantitative evaluations of scanning-proton dose distributions. <i>Journal of Applied Clinical Medical Physics</i> , <b>2021</b> , 22, 193-201	2.3	
80	Consensus Statement on Proton Therapy in Mesothelioma. <i>Practical Radiation Oncology</i> , <b>2021</b> , 11, 119-133	3.3	4
79	Technical Note: 4D robust optimization in small spot intensity-modulated proton therapy (IMPT) for distal esophageal carcinoma. <i>Medical Physics</i> , <b>2021</b> , 48, 4636-4647	4.4	0
78	A Critical Review of LET-Based Intensity-Modulated Proton Therapy Plan Evaluation and Optimization for Head and Neck Cancer Management. <i>International Journal of Particle Therapy</i> , <b>2021</b> , 8, 36-49	1.5	0
77	Exploratory Investigation of Dose-Linear Energy Transfer (LET) Volume Histogram (DLVH) for Adverse Events Study in Intensity Modulated Proton Therapy (IMPT). <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2021</b> , 110, 1189-1199	4	4
76	Intensity Modulated Proton Therapy for Hepatocellular Carcinoma: Initial Clinical Experience. <i>Advances in Radiation Oncology</i> , <b>2021</b> , 6, 100675	3.3	2
75	Technical Note: Multiple energy extraction techniques for synchrotron-based proton delivery systems may exacerbate motion interplay effects in lung cancer treatments. <i>Medical Physics</i> , <b>2021</b> , 48, 4812-4823	4.4	0
74	Implementation and experimental evaluation of Mega-voltage fan-beam CT using a linear accelerator. <i>Radiation Oncology</i> , <b>2021</b> , 16, 139	4.2	
73	Proton beam radiotherapy for patients with early-stage and advanced lung cancer: a narrative review with contemporary clinical recommendations. <i>Journal of Thoracic Disease</i> , <b>2021</b> , 13, 1270-1285	2.6	1
72	Feasibility of using megavoltage computed tomography to reduce proton range uncertainty: A simulation study. <i>Journal of Applied Clinical Medical Physics</i> , <b>2021</b> , 22, 131-140	2.3	1
71	Technical Note: Clinical modeling and validation of breast tissue expander metallic ports in a commercial treatment planning system for proton therapy. <i>Medical Physics</i> , <b>2021</b> , 48, 7512-7525	4.4	0
70	Managing treatment-related uncertainties in proton beam radiotherapy for gastrointestinal cancers. <i>Journal of Gastrointestinal Oncology</i> , <b>2020</b> , 11, 212-224	2.8	11
69	Technical Note: Integrating an open source Monte Carlo code "MCsquare" for clinical use in intensity-modulated proton therapy. <i>Medical Physics</i> , <b>2020</b> , 47, 2558-2574	4.4	13
68	Robust Optimization for Intensity Modulated Proton Therapy to Redistribute High Linear Energy Transfer from Nearby Critical Organs to Tumors in Head and Neck Cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2020</b> , 107, 181-193	4	15

67	Hybrid 3D analytical linear energy transfer calculation algorithm based on precalculated data from Monte Carlo simulations. <i>Medical Physics</i> , <b>2020</b> , 47, 745-752	4.4	11
66	Beam angle comparison for distal esophageal carcinoma patients treated with intensity-modulated proton therapy. <i>Journal of Applied Clinical Medical Physics</i> , <b>2020</b> , 21, 141-152	2.3	4
65	Intensity-modulated proton therapy (IMPT) interplay effect evaluation of asymmetric breathing with simultaneous uncertainty considerations in patients with non-small cell lung cancer. <i>Medical Physics</i> , <b>2020</b> , 47, 5428-5440	4.4	3
64	Acute Toxicities and Short-Term Patient Outcomes After Intensity-Modulated Proton Beam Radiation Therapy or Intensity-Modulated Photon Radiation Therapy for Esophageal Carcinoma: A Mayo Clinic Experience. <i>Advances in Radiation Oncology</i> , <b>2020</b> , 5, 871-879	3.3	7
63	Early Outcomes of Patients With Locally Advanced Non-small Cell Lung Cancer Treated With Intensity-Modulated Proton Therapy Versus Intensity-Modulated Radiation Therapy: The Mayo Clinic Experience. <i>Advances in Radiation Oncology</i> , <b>2020</b> , 5, 450-458	3.3	8
62	Technical Note: Treatment planning system (TPS) approximations matter - comparing intensity-modulated proton therapy (IMPT) plan quality and robustness between a commercial and an in-house developed TPS for nonsmall cell lung cancer (NSCLC). <i>Medical Physics</i> , <b>2019</b> , 46, 4755-4762	4.4	7
61	Impact of planned dose reporting methods on Gamma pass rates for IROC lung and liver motion phantoms treated with pencil beam scanning protons. <i>Radiation Oncology</i> , <b>2019</b> , 14, 108	4.2	1
60	Dosimetric comparison of distal esophageal carcinoma plans for patients treated with small-spot intensity-modulated proton versus volumetric-modulated arc therapies. <i>Journal of Applied Clinical Medical Physics</i> , <b>2019</b> , 20, 15-27	2.3	23
59	Technical Note: Comprehensive evaluation and implementation of two independent methods for beam monitor calibration for proton scanning beam. <i>Medical Physics</i> , <b>2019</b> , 46, 5867-5875	4.4	6
58	Expression of ICOSL is associated with decreased survival in invasive breast cancer. <i>PeerJ</i> , <b>2019</b> , 7, e6903	3.1	9
57	Clinical Validation of a Ray-Casting Analytical Dose Engine for Spot Scanning Proton Delivery Systems. <i>Technology in Cancer Research and Treatment</i> , <b>2019</b> , 18, 1533033819887182	2.7	9
56	A novel and individualized robust optimization method using normalized dose interval volume constraints (NDIVC) for intensity-modulated proton radiotherapy. <i>Medical Physics</i> , <b>2019</b> , 46, 382-393	4.4	6
55	Automation of routine elements for spot-scanning proton patient-specific quality assurance. <i>Medical Physics</i> , <b>2019</b> , 46, 5-14	4.4	7
54	Technical Note: An efficient daily QA procedure for proton pencil beam scanning. <i>Medical Physics</i> , <b>2018</b> , 45, 1040-1049	4.4	12
53	Impact of Spot Size and Spacing on the Quality of Robustly Optimized Intensity Modulated Proton Therapy Plans for Lung Cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2018</b> , 101, 479-489	4	26
52	Multiple energy extraction reduces beam delivery time for a synchrotron-based proton spot-scanning system. <i>Advances in Radiation Oncology</i> , <b>2018</b> , 3, 412-420	3.3	20
51	Technical Note: Using dual step wedge and 2D scintillator to achieve highly precise and robust proton range quality assurance. <i>Medical Physics</i> , <b>2018</b> , 45, 2947-2951	4.4	2
50	Dosimetric analysis of distal esophageal adenocarcinoma patients treated by intensity-modulated proton therapy with small spot size.. <i>Journal of Clinical Oncology</i> , <b>2018</b> , 36, 159-159	2.2	

49	Robust optimization in IMPT using quadratic objective functions to account for the minimum MU constraint. <i>Medical Physics</i> , <b>2018</b> , 45, 460-469	4.4	11
48	Robust radiotherapy planning. <i>Physics in Medicine and Biology</i> , <b>2018</b> , 63, 22TR02	3.8	75
47	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. <i>Journal of Applied Clinical Medical Physics</i> , <b>2018</b> , 19, 140-148	2.3	19
46	Exploratory study of the association of volumetric modulated arc therapy (VMAT) plan robustness with local failure in head and neck cancer. <i>Journal of Applied Clinical Medical Physics</i> , <b>2017</b> , 18, 76-83	2.3	29
45	Comparison of linear and nonlinear programming approaches for "worst case dose" and "minmax" robust optimization of intensity-modulated proton therapy dose distributions. <i>Journal of Applied Clinical Medical Physics</i> , <b>2017</b> , 18, 15-25	2.3	11
44	Robust treatment planning with conditional value at risk chance constraints in intensity-modulated proton therapy. <i>Medical Physics</i> , <b>2017</b> , 44, 28-36	4.4	18
43	Robust intensity-modulated proton therapy to reduce high linear energy transfer in organs at risk. <i>Medical Physics</i> , <b>2017</b> , 44, 6138-6147	4.4	32
42	Mixed integer programming with dose-volume constraints in intensity-modulated proton therapy. <i>Journal of Applied Clinical Medical Physics</i> , <b>2017</b> , 18, 29-35	2.3	5
41	A novel and fast method for proton range verification using a step wedge and 2D scintillator. <i>Medical Physics</i> , <b>2017</b> , 44, 4409-4414	4.4	9
40	Use of a radial projection to reduce the statistical uncertainty of spot lateral profiles generated by Monte Carlo simulation. <i>Journal of Applied Clinical Medical Physics</i> , <b>2017</b> , 18, 88-96	2.3	5
39	Consensus Guidelines for Implementing Pencil-Beam Scanning Proton Therapy for Thoracic Malignancies on Behalf of the PTCOG Thoracic and Lymphoma Subcommittee. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2017</b> , 99, 41-50	4	111
38	Using field size factors to characterize the in-air fluence of a proton machine with a range shifter. <i>Radiation Oncology</i> , <b>2017</b> , 12, 52	4.2	7
37	Exploratory Study of 4D versus 3D Robust Optimization in Intensity Modulated Proton Therapy for Lung Cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2016</b> , 95, 523-533	4	78
36	Robustness Quantification and Worst-Case Robust Optimization in Intensity-Modulated Proton Therapy <b>2016</b> , 139-155		3
35	Perturbation of water-equivalent thickness as a surrogate for respiratory motion in proton therapy. <i>Journal of Applied Clinical Medical Physics</i> , <b>2016</b> , 17, 368-378	2.3	13
34	An efficient method to determine double Gaussian fluence parameters in the eclipse proton pencil beam model. <i>Medical Physics</i> , <b>2016</b> , 43, 6544	4.4	14
33	Robustness quantification methods comparison in volumetric modulated arc therapy to treat head and neck cancer. <i>Practical Radiation Oncology</i> , <b>2016</b> , 6, e269-e275	2.8	10
32	Robust optimization in intensity-modulated proton therapy to account for anatomy changes in lung cancer patients. <i>Radiotherapy and Oncology</i> , <b>2015</b> , 114, 367-72	5.3	53

31	Impact of respiratory motion on worst-case scenario optimized intensity modulated proton therapy for lung cancers. <i>Practical Radiation Oncology</i> , <b>2015</b> , 5, e77-86	2.8	54
30	Impact of range shifter material on proton pencil beam spot characteristics. <i>Medical Physics</i> , <b>2015</b> , 42, 1335-40	4.4	25
29	Assessing the robustness of passive scattering proton therapy with regard to local recurrence in stage III non-small cell lung cancer: a secondary analysis of a phase II trial. <i>Radiation Oncology</i> , <b>2014</b> , 9, 108	4.2	9
28	Multifield optimization intensity modulated proton therapy for head and neck tumors: a translation to practice. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2014</b> , 89, 846-53	4	99
27	Evaluation of the systematic error in using 3D dose calculation in scanning beam proton therapy for lung cancer. <i>Journal of Applied Clinical Medical Physics</i> , <b>2014</b> , 15, 4810	2.3	8
26	Dosimetric benefits of robust treatment planning for intensity modulated proton therapy for base-of-skull cancers. <i>Practical Radiation Oncology</i> , <b>2014</b> , 4, 384-91	2.8	46
25	An Automatic Approach for Satisfying Dose-Volume Constraints in Linear Fluence Map Optimization for IMPT. <i>Journal of Cancer Therapy</i> , <b>2014</b> , 5, 198-207	0.2	7
24	Proton beam therapy for locally advanced lung cancer: A review. <i>World Journal of Clinical Oncology</i> , <b>2014</b> , 5, 568-75	2.5	15
23	Preliminary evaluation of multifield and single-field optimization for the treatment planning of spot-scanning proton therapy of head and neck cancer. <i>Medical Physics</i> , <b>2013</b> , 40, 081709	4.4	57
22	Effects of respiratory motion on passively scattered proton therapy versus intensity modulated photon therapy for stage III lung cancer: are proton plans more sensitive to breathing motion?. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2013</b> , 87, 576-82	4	24
21	Statistical assessment of proton treatment plans under setup and range uncertainties. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2013</b> , 86, 1007-13	4	45
20	Patient-specific quantification of respiratory motion-induced dose uncertainty for step-and-shoot IMRT of lung cancer. <i>Medical Physics</i> , <b>2013</b> , 40, 121712	4.4	8
19	Effectiveness of robust optimization in intensity-modulated proton therapy planning for head and neck cancers. <i>Medical Physics</i> , <b>2013</b> , 40, 051711	4.4	96
18	PTV-based IMPT optimization incorporating planning risk volumes vs robust optimization. <i>Medical Physics</i> , <b>2013</b> , 40, 021709	4.4	57
17	Uncertainty incorporated beam angle optimization for IMPT treatment planning. <i>Medical Physics</i> , <b>2012</b> , 39, 5248-56	4.4	43
16	Dynamically accumulated dose and 4D accumulated dose for moving tumors. <i>Medical Physics</i> , <b>2012</b> , 39, 7359-67	4.4	34
15	Influence of robust optimization in intensity-modulated proton therapy with different dose delivery techniques. <i>Medical Physics</i> , <b>2012</b> , 39, 3089-101	4.4	60
14	Robust optimization of intensity modulated proton therapy. <i>Medical Physics</i> , <b>2012</b> , 39, 1079-91	4.4	221

13	Particle energization in 3D magnetic reconnection of relativistic pair plasmas. <i>Physics of Plasmas</i> , <b>2011</b> , 18, 052105	2.1	49
12	Parameterization of multiple Bragg curves for scanning proton beams using simultaneous fitting of multiple curves. <i>Physics in Medicine and Biology</i> , <b>2011</b> , 56, 7725-35	3.8	27
11	Ideal magnetohydrodynamic simulations of unmagnetized dense plasma jet injection into a hot strongly magnetized plasma. <i>Nuclear Fusion</i> , <b>2011</b> , 51, 073026	3.3	7
10	Ideal magnetohydrodynamic simulations of low beta compact toroid injection into a hot strongly magnetized plasma. <i>Nuclear Fusion</i> , <b>2009</b> , 49, 095008	3.3	9
9	NOISE-SUSTAINED CONVECTIVE INSTABILITY IN A MAGNETIZED TAYLOR-COUPETTE FLOW. <i>Astrophysical Journal</i> , <b>2009</b> , 692, 998-1003	4.7	9
8	Magnetized Ekman layer and Stewartson layer in a magnetized Taylor-Couette flow. <i>Physical Review E</i> , <b>2008</b> , 77, 056314	2.4	16
7	Ideal magnetohydrodynamic simulation of magnetic bubble expansion as a model for extragalactic radio lobes. <i>Physics of Plasmas</i> , <b>2008</b> , 15, 072905	2.1	6
6	Equilibrium and magnetic properties of a rotating plasma annulus. <i>Physics of Plasmas</i> , <b>2008</b> , 15, 102109	2.1	12
5	Numerical Study of the Magnetorotational Instability in Princeton MRI Experiment. <i>Astrophysical Journal</i> , <b>2008</b> , 684, 515-524	4.7	18
4	Long-Term Evolution of Magnetized Bubbles in Galaxy Clusters. <i>Astrophysical Journal</i> , <b>2008</b> , 684, L57-L60.	4.7	7
3	Traveling waves in a magnetized Taylor-Couette flow. <i>Physical Review E</i> , <b>2007</b> , 76, 016310	2.4	19
2	Helical magnetorotational instability in magnetized Taylor-Couette flow. <i>Physical Review E</i> , <b>2006</b> , 74, 056302	2.4	61
1	Simulations of Magnetorotational Instability in a Magnetized Couette Flow. <i>Astrophysical Journal</i> , <b>2006</b> , 643, 306-317	4.7	35