

Christian BÄumer

List of Publications by Year in descending order

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Version: 2024-02-01

79
papers

1,654
citations

471061

17
h-index

301761

39
g-index

80
all docs

80
docs citations

80
times ranked

1477
citing authors

#	ARTICLE	IF	CITATIONS
1	Mitigation of motion effects in pencil-beam scanning – Impact of repainting on 4D robustly optimized proton treatment plans for hepatocellular carcinoma. <i>Zeitschrift Fur Medizinische Physik</i> , 2022, 32, 63-73.	0.6	4
2	Planning benchmark study for SBRT of liver metastases: Results of the DEGRO/DGMP working group stereotactic radiotherapy and radiosurgery. <i>International Journal of Radiation Oncology Biology Physics</i> , 2022, , .	0.4	6
3	Spectral fiber dosimetry with beryllium oxide for quality assurance in hadron radiation therapy. <i>Journal of Instrumentation</i> , 2022, 17, P02009.	0.5	2
4	Technical note: Impact of beam properties for uveal melanoma proton therapy – An in silico planning study. <i>Medical Physics</i> , 2022, 49, 3481-3488.	1.6	6
5	Dosimetric feasibility of moderately hypofractionated/dose escalated radiation therapy for localised prostate cancer with intensity-modulated proton beam therapy using simultaneous integrated boost (SIB-IMPT) and impact of hydrogel prostate-rectum spacer. <i>Radiation Oncology</i> , 2022, 17, 64.	1.2	1
6	Enhancement of Proton Therapy Efficiency by Noble Metal Nanoparticles Is Driven by the Number and Chemical Activity of Surface Atoms. <i>Small</i> , 2022, 18, e2106383.	5.2	13
7	Preliminary results of the experimental cross sections of the long-lived ^{18}F emitters of interest in PET range verification in proton therapy at clinical energies. <i>EPJ Web of Conferences</i> , 2022, 261, 05007.	0.1	0
8	Adaptive Proton Therapy of Pediatric Head and Neck Cases Using MRI-Based Synthetic CTs: Initial Experience of the Prospective KiAPT Study. <i>Cancers</i> , 2022, 14, 2616.	1.7	2
9	The radiosensitizing effect of platinum nanoparticles in proton irradiations is not caused by an enhanced proton energy deposition at the macroscopic scale. <i>Physics in Medicine and Biology</i> , 2022, 67, 155023.	1.6	3
10	Single pencil beam benchmark of a module for Monte Carlo simulation of proton transport in the PENELOPE code. <i>Medical Physics</i> , 2021, 48, 456-476.	1.6	16
11	Technical Note: Investigating interplay effects in pencil beam scanning proton therapy with a 4D XCAT phantom within the RayStation treatment planning system. <i>Medical Physics</i> , 2021, 48, 1448-1455.	1.6	4
12	In situ spectroscopic ellipsometry as a pathway toward achieving VO ₂ stoichiometry for amorphous vanadium oxide with magnetron sputtering. <i>AIP Advances</i> , 2021, 11, .	0.6	1
13	Towards using secondary gamma-rays from proton-induced radioactivation of titanium implants for off-line field verification. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2021, 492, 56-63.	0.6	4
14	Direct proton range verification using oxygen-18 enriched water as a contrast agent. <i>Radiation Physics and Chemistry</i> , 2021, 182, 109385.	1.4	5
15	Clinical Implementation of Proton Therapy Using Pencil-Beam Scanning Delivery Combined With Static Apertures. <i>Frontiers in Oncology</i> , 2021, 11, 599018.	1.3	12
16	Experiments and Monte Carlo simulations on multiple Coulomb scattering of protons. <i>Medical Physics</i> , 2021, 48, 3186-3199.	1.6	5
17	Delineation atlas of the Circle of Willis and the large intracranial arteries for evaluation of doses to neurovascular structures in pediatric brain tumor patients treated with radiation therapy. <i>Acta Oncologica</i> , 2021, 60, 1392-1398.	0.8	4
18	Feasibility of Proton Beam Therapy for Infants with Brain Tumours: Experiences from the Prospective KiProReg Registry Study. <i>Clinical Oncology</i> , 2021, 33, e295-e304.	0.6	7

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19	Experimental consolidation and absolute measurement of the $\sigma^{\text{nat}}_{\text{C}(p,x)}$ nuclear activation cross section at 100 MeV for particle therapy physics. <i>European Physical Journal A</i> , 2021, 57, 1.	1.0	3
20	PO-1643 End-2-End testing of PBS proton therapy workflow with the PTW RUBY phantom. <i>Radiotherapy and Oncology</i> , 2021, 161, S1364.	0.3	0
21	PO-1786 Computed tomography of the head for therapy planning of pediatric patients – impact of scan-length. <i>Radiotherapy and Oncology</i> , 2021, 161, S1512.	0.3	1
22	PO-1437 Endocrine Late- Effects after Childhood and Adolescent Cancer - The Pan-European Registry HARMONIC. <i>Radiotherapy and Oncology</i> , 2021, 161, S1180.	0.3	0
23	PH-0379 Influence of tumor site on neurovascular structure doses in proton therapy of pediatric brain tumors. <i>Radiotherapy and Oncology</i> , 2021, 161, S278-S279.	0.3	0
24	Estimating the modulating effect of lung tissue in particle therapy using a clinical CT voxel histogram analysis. <i>Physics in Medicine and Biology</i> , 2021, 66, 185002.	1.6	2
25	Can a ToF-PET photon attenuation reconstruction test stopping-power estimations in proton therapy? A phantom study. <i>Physics in Medicine and Biology</i> , 2021, 66, 215010.	1.6	2
26	Impact of air gap, range shifter, and delivery technique on skin dose in proton therapy. <i>Medical Physics</i> , 2021, 48, 831-840.	1.6	6
27	Technical Note: Providing proton fields down to the few MeV level at clinical pencil beam scanning facilities for radiobiological experiments. <i>Medical Physics</i> , 2021, , .	1.6	1
28	Evaluation of the activation of brass apertures in proton therapy using gamma-ray spectrometry and Monte Carlo simulations. <i>Journal of Radiological Protection</i> , 2020, 40, 848-860.	0.6	3
29	Determination of surface dose in pencil beam scanning proton therapy. <i>Medical Physics</i> , 2020, 47, 2277-2288.	1.6	6
30	Proton Beam Therapy for Children With Neuroblastoma: Experiences From the Prospective KiProReg Registry. <i>Frontiers in Oncology</i> , 2020, 10, 617506.	1.3	8
31	4D robust optimization in pencil beam scanning proton therapy for hepatocellular carcinoma. <i>Journal of Physics: Conference Series</i> , 2019, 1154, 012021.	0.3	2
32	PO-0904 Benchmarking of a module for Monte Carlo simulation of proton transport in the PENELOPE code. <i>Radiotherapy and Oncology</i> , 2019, 133, S479-S480.	0.3	0
33	EP-1974 Usage of computer generated 4D CTs for interplay effect studies in scanned proton therapy. <i>Radiotherapy and Oncology</i> , 2019, 133, S1077-S1078.	0.3	0
34	PO-0908 Determination of surface dose in pencil beam scanning proton therapy. <i>Radiotherapy and Oncology</i> , 2019, 133, S483.	0.3	0
35	Stereotactical fields applied in proton spot scanning mode with range shifter and collimating aperture. <i>Physics in Medicine and Biology</i> , 2019, 64, 155003.	1.6	15
36	Measurement of nuclear activation cross sections of protons on natural carbon for proton beam energies between 100 and 220 MeV. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019, 454, 50-55.	0.6	8

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37	Proton Beam Range Verification with Secondary Radiation from Titanium Implants. , 2019, , .		2
38	Measurement of absolute activation cross sections from carbon and aluminum for proton therapy. Nuclear Instruments & Methods in Physics Research B, 2019, 440, 75-81.	0.6	15
39	Inter-centre variability of CT-based stopping-power prediction in particle therapy: Survey-based evaluation. Physics and Imaging in Radiation Oncology, 2018, 6, 25-30.	1.2	53
40	Experimental validation of a 4D dose calculation routine for pencil beam scanning proton therapy. Zeitschrift Fur Medizinische Physik, 2018, 28, 121-133.	0.6	36
41	DPM as a radiation transport engine for PRIMO. Radiation Oncology, 2018, 13, 256.	1.2	14
42	Motion effects in proton treatments of hepatocellular carcinomaâ€”4D robustly optimised pencil beam scanning plans versus double scattering plans. Physics in Medicine and Biology, 2018, 63, 235006.	1.6	14
43	TOPAS/Geant4 configuration for ionization chamber calculations in proton beams. Physics in Medicine and Biology, 2018, 63, 115013.	1.6	28
44	PO-0969: Inter-center variability of CT-to-SPR conversion in particle therapy: Survey-based evaluation. Radiotherapy and Oncology, 2018, 127, S533-S534.	0.3	1
45	EP-2024: 4D evaluation of proton pencil beam scanning and double scattering for hepatocellular carcinoma. Radiotherapy and Oncology, 2018, 127, S1105-S1106.	0.3	0
46	Collimated proton pencil-beam scanning for superficial targets: impact of the order of range shifter and aperture. Physics in Medicine and Biology, 2018, 63, 085020.	1.6	24
47	Comprehensive clinical commissioning and validation of the RayStation treatment planning system for proton therapy with active scanning and passive treatment techniques. Physica Medica, 2017, 43, 15-24.	0.4	25
48	Dosimetry intercomparison of four proton therapy institutions in Germany employing spot scanning. Zeitschrift Fur Medizinische Physik, 2017, 27, 80-85.	0.6	17
49	EP-1404: Early results of proton beam therapy in sarcomas at the West German Proton Therapy Center Essen. Radiotherapy and Oncology, 2016, 119, S654-S655.	0.3	0
50	Expected clinical benefits and challenges of particle therapy for paediatric tumours. Physica Medica, 2016, 32, 184-185.	0.4	1
51	Evaluation of detectors for acquisition of pristine depthâ€”dose curves in pencil beam scanning. Journal of Applied Clinical Medical Physics, 2015, 16, 151-163.	0.8	45
52	Use of a novel twoâ€”dimensional ionization chamber array for pencil beam scanning proton therapy beam quality assurance. Journal of Applied Clinical Medical Physics, 2015, 16, 270-276.	0.8	38
53	Daily QA in proton therapy using a single commercially available detector. Journal of Applied Clinical Medical Physics, 2014, 15, 217-228.	0.8	27
54	WE-E-141-05: Ion Recombination for Ionization Chamber Dosimetry in a Pencil Beam Scanning Proton Therapy Beam. Medical Physics, 2013, 40, 492-492.	1.6	0

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55	Lateral dose profile characterization in scanning particle therapy. Medical Physics, 2011, 38, 2904-2913.	1.6	15
56	Correction to "Status of Direct Conversion Detectors for Medical Imaging With X-Rays" [Aug 09 1800-1809]. IEEE Transactions on Nuclear Science, 2010, 57, 2995-2995.	1.2	1
57	THâ€Câ€BRBâ€09: Design and Initial Performance of a Large Crossâ€Esection Multiâ€Eelement Ionization Chamber System for Water Equivalent Range Measurements of Pristine Proton Fields. Medical Physics, 2010, 37, 3454-3455.	1.6	0
58	Status of Direct Conversion Detectors for Medical Imaging With X-Rays. IEEE Transactions on Nuclear Science, 2009, 56, 1800-1809.	1.2	66
59	Testing an Energy-Dispersive Counting-Mode Detector With Hard X-Rays From a Synchrotron Source. IEEE Transactions on Nuclear Science, 2008, 55, 1785-1790.	1.2	11
60	Spectral analysis of scattered radiation in CT. Proceedings of SPIE, 2008, , .	0.8	13
61	Towards direct conversion detectors for medical imaging with X-rays. , 2008, , .		10
62	Experimental feasibility of multi-energy photon-counting K-edge imaging in pre-clinical computed tomography. Physics in Medicine and Biology, 2008, 53, 4031-4047. (http://www.ncbi.nlm.nih.gov/pubmed/1874314)	1.6	704
63		1.1	50
64	Design and test of an integrated Sigmaâ€“Delta analog-to-digital converter for X-ray Computed Tomography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 576, 123-127.	0.7	0
65	Gamow-Teller Strengths in the $A=14$ Multiplet: A Challenge to the Shell Model. Physical Review Letters, 2006, 97, 062502.	2.9	40
66	The $(t, He3)$ reaction at 43 MeV/nucleon on $Ca48$ and $Ni58$: Results and microscopic interpretation. Physical Review C, 2006, 73, .	1.1	19
67	Design and Evaluation of a CMOS-Photosensor with In-Pixel Sigma-Delta Modulator for X-ray Computed Tomography. , 2006, , .		7
68	Polarized proton scattering on $58Ni$ at small momentum transfer: A test of the microscopic optical model and effective interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 612, 165-172.	1.5	11
69	Measurement of the $H2(d, He2)n$ reaction at $E_d=171$ MeV and implications for the neutron-neutron scattering length. Physical Review C, 2005, 71, .	1.1	17
70	High resolution study of the Gamowâ€“Teller strength distribution starting from the ground state of $14N$ in the $\hat{I}^2\hat{\alpha}^{\sim}$ and \hat{I}^2+ directions. Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S1931-S1934.	1.4	2
71	Testing quantum correlations with nuclear probes. Journal of Physics G: Nuclear and Particle Physics, 2004, 30, 481-489.	1.4	16
72	Polarization correlations of proton pairs as tests of hidden-variable theories. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 323, 176-181.	0.9	9

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73	Direct proton decay of the isoscalar giant dipole resonance. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 576, 253-259.	1.5	26
74	High resolution studies of low lying GT strength using the (d,2He) reaction and its impact on electron-capture rates in stellar environments. Nuclear Physics A, 2003, 719, C131-C134.	0.6	2
75	Gamow-Teller matrix elements from the $^{12}\text{C}(d,2\text{He})$ and $^{24}\text{Mg}(d,2\text{He})$ reactions at 170 MeV. Physical Review C, 2002, 65, .	1.1	44
76	Measuring the reaction with the focal-plane detection system of the BBS magnetic spectrometer at AGOR. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 481, 253-261.	0.7	51
77	Deuteron elastic and inelastic scattering from ^{12}C , ^{24}Mg , and ^{58}Ni at 170 MeV. Physical Review C, 2001, 63, .	1.1	28
78	Performance of an ASD-8 based wire chamber readout system. IEEE Transactions on Nuclear Science, 2000, 47, 2741-2747.	1.2	5
79	Validation of a Monte Carlo Framework for Out-of-Field Dose Calculations in Proton Therapy. Frontiers in Oncology, 0, 12, .	1.3	14