

Oliver Jkel

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/5294618/oliver-jkel-publications-by-year.pdf>

Version: 2024-04-27

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.

247
papers

7,899
citations

48
h-index

77
g-index

292
ext. papers

9,007
ext. citations

3
avg, IF

5.82
L-index

#	Paper	IF	Citations
247	An abdominal phantom with anthropomorphic organ motion and multimodal imaging contrast for MR-guided radiotherapy.. <i>Physics in Medicine and Biology</i> , 2022 ,	3.8	1
246	Biosensor for deconvolution of individual cell fate in response to ion beam irradiation.. <i>Cell Reports Methods</i> , 2022 , 2, 100169		0
245	Experimental Comparison of Fiducial Markers Used in Proton Therapy: Study of Different Imaging Modalities and Proton Fluence Perturbations Measured With CMOS Pixel Sensors.. <i>Frontiers in Oncology</i> , 2022 , 12, 830080	5.3	0
244	Intensity threshold variation method in the post-irradiation analysis of Fluorescent Nuclear Track Detectors for neutron dosimetry. <i>Radiation Physics and Chemistry</i> , 2022 , 110257	2.5	
243	Assessment of secondary neutrons in particle therapy by Monte Carlo simulations.. <i>Physics in Medicine and Biology</i> , 2021 ,	3.8	1
242	Improved risk stratification via integration of radiomics and dosiomics features in patients with recurrent high-grade glioma undergoing carbon ion radiotherapy (CIRT).. <i>Journal of Clinical Oncology</i> , 2021 , 39, 2043-2043	2.2	
241	Quality assurance method for monitoring of lateral pencil beam positions in scanned carbon-ion radiotherapy using tracking of secondary ions. <i>Medical Physics</i> , 2021 , 48, 4411-4424	4.4	0
240	Triple channel analysis of Gafchromic EBT3 irradiated with clinical carbon-ion beams. <i>Physica Medica</i> , 2021 , 87, 123-130	2.7	2
239	Mapping the Relative Biological Effectiveness of Proton, Helium and Carbon Ions with High-Throughput Techniques. <i>Cancers</i> , 2020 , 12,	6.6	3
238	Beam characterization at NSRL for radiobiological experiments phase 1. <i>Journal of Instrumentation</i> , 2020 , 15, T10004-T10004	1	1
237	Dosimetric Impact of the Positional Imaging Frequency for Hypofractionated Prostate Radiotherapy - A Voxel-by-Voxel Analysis. <i>Frontiers in Oncology</i> , 2020 , 10, 564068	5.3	2
236	MR-guided proton therapy: a review and a preview. <i>Radiation Oncology</i> , 2020 , 15, 129	4.2	34
235	Analytical modeling of depth-dose degradation in heterogeneous lung tissue for intensity-modulated proton therapy planning. <i>Physics and Imaging in Radiation Oncology</i> , 2020 , 14, 32-38 ^{3,1}		5
234	Upgrading an Integrating Carbon-Ion Transmission Imaging System With Active Scanning Beam Delivery Toward Low Dose Ion Imaging. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2020 , 4, 262-268	4.2	6
233	Physical advantages of particles: protons and light ions. <i>British Journal of Radiology</i> , 2020 , 93, 20190428	3.4	5
232	2D range modulator for high-precision water calorimetry in scanned carbon-ion beams. <i>Physics in Medicine and Biology</i> , 2020 , 65, 215003	3.8	3
231	Three-voltage linear method to determine ion recombination in proton and light-ion beams. <i>Physics in Medicine and Biology</i> , 2020 , 65, 045015	3.8	8

230	RBE-weighted doses in target volumes of chordoma and chondrosarcoma patients treated with carbon ion radiotherapy: Comparison of local effect models I and IV. <i>Radiotherapy and Oncology</i> , 2019 , 141, 234-238	5.3	2
229	Methodology paper: a novel phantom setup for commissioning of scanned ion beam delivery and TPS. <i>Radiation Oncology</i> , 2019 , 14, 77	4.2	4
228	Dosimetric Impact of Interfractional Variations in Prostate Cancer Radiotherapy-Implications for Imaging Frequency and Treatment Adaptation. <i>Frontiers in Oncology</i> , 2019 , 9, 940	5.3	9
227	Dosimetric Impact of Interfractional Variations for Post-prostatectomy Radiotherapy to the Prostatic Fossa-Relevance for the Frequency of Position Verification Imaging and Treatment Adaptation. <i>Frontiers in Oncology</i> , 2019 , 9, 1191	5.3	4
226	Investigation of single carbon ion fragmentation in water and PMMA for hadron therapy. <i>Physics in Medicine and Biology</i> , 2019 , 64, 055018	3.8	6
225	High control rates of proton- and carbon-ion-beam treatment with intensity-modulated active raster scanning in 101 patients with skull base chondrosarcoma at the Heidelberg Ion Beam Therapy Center. <i>Cancer</i> , 2018 , 124, 2036-2044	6.4	32
224	Dose-response curves for MRI-detected radiation-induced temporal lobe reactions in patients after proton and carbon ion therapy: Does the same RBE-weighted dose lead to the same biological effect?. <i>Radiotherapy and Oncology</i> , 2018 , 128, 109-114	5.3	7
223	Prospective feasibility analysis of a novel off-line approach for MR-guided radiotherapy. <i>Strahlentherapie Und Onkologie</i> , 2018 , 194, 425-434	4.3	14
222	Proof of principle of helium-beam radiography using silicon pixel detectors for energy deposition measurement, identification, and tracking of single ions. <i>Medical Physics</i> , 2018 , 45, 817-829	4.4	15
221	Clinical outcome after particle therapy for meningiomas of the skull base: toxicity and local control in patients treated with active rasterscanning. <i>Radiation Oncology</i> , 2018 , 13, 54	4.2	25
220	Influence of Ga-DOTATOC on sparing of normal tissue for radiation therapy of skull base meningioma: differential impact of photon and proton radiotherapy. <i>Radiation Oncology</i> , 2018 , 13, 58	4.2	16
219	Cost-Effectiveness of Carbon Ion Radiation Therapy for Skull Base Chordoma Utilizing Long-Term (10-Year) Outcome Data. <i>Anticancer Research</i> , 2018 , 38, 4853-4858	2.3	8
218	Helium ion beam imaging for image guided ion radiotherapy. <i>Radiation Oncology</i> , 2018 , 13, 109	4.2	6
217	Significance of intra-fractional motion for pancreatic patients treated with charged particles. <i>Radiation Oncology</i> , 2018 , 13, 120	4.2	13
216	Evaluation of particle radiotherapy for the re-irradiation of recurrent intracranial meningioma. <i>Radiation Oncology</i> , 2018 , 13, 86	4.2	23
215	Bestrahlungsverfahren 2018 , 525-577		
214	A phenomenological relative biological effectiveness approach for proton therapy based on an improved description of the mixed radiation field. <i>Physics in Medicine and Biology</i> , 2017 , 62, 1378-1395	3.8	29
213	Generation of synthetic CT data using patient specific daily MR image data and image registration. <i>Physics in Medicine and Biology</i> , 2017 , 62, 1358-1377	3.8	27

212	Direct determination of k for Farmer-type ionization chambers in a clinical scanned carbon ion beam using water calorimetry. <i>Physics in Medicine and Biology</i> , 2017 , 62, 2033-2054	3.8	9
211	Internal target volume margins for liver tumours treated with gated scanned carbon-ion radiotherapy. <i>Biomedical Physics and Engineering Express</i> , 2017 , 3, 015029	1.5	2
210	Visualization of air and metal inhomogeneities in phantoms irradiated by carbon ion beams using prompt secondary ions. <i>Physica Medica</i> , 2017 , 38, 140-147	2.7	5
209	Application of fluorescent nuclear track detectors for cellular dosimetry. <i>Physics in Medicine and Biology</i> , 2017 , 62, 2719-2740	3.8	9
208	Ion recombination correction factor in scanned light-ion beams for absolute dose measurement using plane-parallel ionisation chambers. <i>Physics in Medicine and Biology</i> , 2017 , 62, 5365-5382	3.8	16
207	Development of the open-source dose calculation and optimization toolkit matRad. <i>Medical Physics</i> , 2017 , 44, 2556-2568	4.4	91
206	STED microscopy visualizes energy deposition of single ions in a solid-state detector beyond diffraction limit. <i>Physics in Medicine and Biology</i> , 2017 , 62, N180-N190	3.8	7
205	Overcoming hypoxia-induced tumor radioresistance in non-small cell lung cancer by targeting DNA-dependent protein kinase in combination with carbon ion irradiation. <i>Radiation Oncology</i> , 2017 , 12, 208	4.2	58
204	Effective radiotherapeutic treatment intensification in patients with pancreatic cancer: higher doses alone, higher RBE or both?. <i>Radiation Oncology</i> , 2017 , 12, 203	4.2	8
203	Investigation of mixed ion fields in the forward direction for 220.5 MeV/u helium ion beams: comparison between water and PMMA targets. <i>Physics in Medicine and Biology</i> , 2017 , 62, 8003-8024	3.8	10
202	Optimization of Monte Carlo particle transport parameters and validation of a novel high throughput experimental setup to measure the biological effects of particle beams. <i>Medical Physics</i> , 2017 , 44, 6061-6073	4.4	17
201	Planning strategies for inter-fractional robustness in pancreatic patients treated with scanned carbon therapy. <i>Radiation Oncology</i> , 2017 , 12, 94	4.2	14
200	A Novel Method for Fragmentation Studies in Particle Therapy: Principles of Ion Identification. <i>International Journal of Particle Therapy</i> , 2017 , 3, 439-449	1.5	8
199	Evaluation of Dosimetric Robustness of Carbon Ion Boost Therapy for Anal Carcinoma. <i>International Journal of Particle Therapy</i> , 2017 , 3, 382-391	1.5	1
198	High-LET radiotherapy for adenoid cystic carcinoma of the head and neck: 15 years experience with raster-scanned carbon ion therapy. <i>Radiotherapy and Oncology</i> , 2016 , 118, 272-80	5.3	52
197	Tomographic imaging with carbon ion beams 2016 ,		2
196	Optimization of Carbon Ion Treatment Plans by Integrating Tissue Specific R_{BE} Values for Patients with Non-Resectable Pancreatic Cancer. <i>PLoS ONE</i> , 2016 , 11, e0164473	3.7	5
195	Radiation Therapy with Protons and Heavy Ions 2016 , 127-137		1

194	WE-H-BRA-06: Experimental Investigation of RBE for Lung Cancer Cell Lines as a Function of Dose and LET in Proton, Helium and Carbon Beams. <i>Medical Physics</i> , 2016 , 43, 3843-3844	4.4	
193	Next generation multi-scale biophysical characterization of high precision cancer particle radiotherapy using clinical proton, helium-, carbon- and oxygen ion beams. <i>Oncotarget</i> , 2016 , 7, 56676-56689	3.3	51
192	Data-driven RBE parameterization for helium ion beams. <i>Physics in Medicine and Biology</i> , 2016 , 61, 888-905	3.8	18
191	Fluence-based dosimetry of proton and heavier ion beams using single track detectors. <i>Physics in Medicine and Biology</i> , 2016 , 61, 1021-40	3.8	13
190	Biologically optimized helium ion plans: calculation approach and its in vitro validation. <i>Physics in Medicine and Biology</i> , 2016 , 61, 4283-99	3.8	46
189	A 3D feature point tracking method for ion radiation. <i>Physics in Medicine and Biology</i> , 2016 , 61, 4088-1043	3.8	13
188	Technical Note: Radiological properties of tissue surrogates used in a multimodality deformable pelvic phantom for MR-guided radiotherapy. <i>Medical Physics</i> , 2016 , 43, 908-16	4.4	32
187	Registration procedure for spatial correlation of physical energy deposition of particle irradiation and cellular response utilizing cell-fluorescent ion track hybrid detectors. <i>Physics in Medicine and Biology</i> , 2016 , 61, N441-60	3.8	5
186	Clinical implementation and range evaluation of in vivo PET dosimetry for particle irradiation in patients with primary glioma. <i>Radiotherapy and Oncology</i> , 2015 , 115, 179-85	5.3	30
185	Carbon ion beam treatment in patients with primary and recurrent sacrococcygeal chordoma. <i>Strahlentherapie Und Onkologie</i> , 2015 , 191, 597-603	4.3	47
184	Ion therapy of prostate cancer: daily rectal dose reduction by application of spacer gel. <i>Radiation Oncology</i> , 2015 , 10, 56	4.2	12
183	Atrioventricular node ablation in Langendorff-perfused porcine hearts using carbon ion particle therapy: methods and an in vivo feasibility investigation for catheter-free ablation of cardiac arrhythmias. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2015 , 8, 429-38	6.4	33
182	Time-resolved optically stimulated luminescence of Al ₂ O ₃ :C for ion beam therapy dosimetry. <i>Physics in Medicine and Biology</i> , 2015 , 60, 6613-38	3.8	24
181	COSMIC: A Regimen of Intensity Modulated Radiation Therapy Plus Dose-Escalated, Raster-Scanned Carbon Ion Boost for Malignant Salivary Gland Tumors: Results of the Prospective Phase 2 Trial. <i>International Journal of Radiation Oncology Biology Physics</i> , 2015 , 93, 37-46	4	55
180	matRad - a multi-modality open source 3D treatment planning toolkit. <i>IFMBE Proceedings</i> , 2015 , 1608-1611	4.1	23
179	An anthropomorphic multimodality (CT/MRI) head phantom prototype for end-to-end tests in ion radiotherapy. <i>Zeitschrift Fur Medizinische Physik</i> , 2015 , 25, 391-399	7.6	23
178	An advanced image processing method to improve the spatial resolution of ion radiographies. <i>Physics in Medicine and Biology</i> , 2015 , 60, 8525-47	3.8	21
177	Optimization of carbon ion and proton treatment plans using the raster-scanning technique for patients with unresectable pancreatic cancer. <i>Radiation Oncology</i> , 2015 , 10, 237	4.2	13

176	Combined intensity-modulated radiotherapy plus raster-scanned carbon ion boost for advanced adenoid cystic carcinoma of the head and neck results in superior locoregional control and overall survival. <i>Cancer</i> , 2015 , 121, 3001-9	6.4	57
175	Correlation of Particle Traversals with Clonogenic Survival Using Cell-Fluorescent Ion Track Hybrid Detector. <i>Frontiers in Oncology</i> , 2015 , 5, 275	5.3	5
174	A motorized solid-state phantom for patient-specific dose verification in ion beam radiotherapy. <i>Physics in Medicine and Biology</i> , 2015 , 60, 7151-63	3.8	7
173	Reirradiation Using Carbon Ions in Patients with Locally Recurrent Rectal Cancer at HIT: First Results. <i>Annals of Surgical Oncology</i> , 2015 , 22, 2068-74	3.1	31
172	Carbon ion radiotherapy in Japan: an assessment of 20 years of clinical experience. <i>Lancet Oncology</i> , 2015 , 16, e93-e100	21.7	322
171	Experimental verification of ion stopping power prediction from dual energy CT data in tissue surrogates. <i>Physics in Medicine and Biology</i> , 2014 , 59, 83-96	3.8	120
170	Experimental investigations on carbon ion scanning radiography using a range telescope. <i>Physics in Medicine and Biology</i> , 2014 , 59, 3041-57	3.8	26
169	Single track coincidence measurements of fluorescent and plastic nuclear track detectors in therapeutic carbon beams. <i>Journal of Instrumentation</i> , 2014 , 9, P04013-P04013	1	2
168	Absorbed dose in ion beams: comparison of ionisation- and fluence-based measurements. <i>Radiation Protection Dosimetry</i> , 2014 , 161, 387-92	0.9	6
167	Temporal lobe reactions after carbon ion radiation therapy: comparison of relative biological effectiveness-weighted tolerance doses predicted by local effect models I and IV. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014 , 88, 1136-41	4	12
166	Randomized phase II trial of hypofractionated proton versus carbon ion radiation therapy in patients with sacrococcygeal chordoma-the ISAC trial protocol. <i>Radiation Oncology</i> , 2014 , 9, 100	4.2	40
165	First experiences with the implementation of the European standard EN 62304 on medical device software for the quality assurance of a radiotherapy unit. <i>Radiation Oncology</i> , 2014 , 9, 79	4.2	6
164	Four-dimensional patient dose reconstruction for scanned ion beam therapy of moving liver tumors. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014 , 89, 175-81	4	37
163	Distortion of the per-pixel signal in the Timepix detector observed in high energy carbon ion beams. <i>Journal of Instrumentation</i> , 2014 , 9, P09006-P09006	1	8
162	Experimental verification of ion range calculation in a treatment planning system using a flat-panel detector. <i>Physics in Medicine and Biology</i> , 2014 , 59, 3737-47	3.8	6
161	LET-painting increases tumour control probability in hypoxic tumours. <i>Acta Oncologica</i> , 2014 , 53, 25-32	3.2	84
160	Monte Carlo calculated CT numbers for improved heavy ion treatment planning. <i>Nukleonika</i> , 2014 , 59, 15-23	1	1
159	Residual motion mitigation in scanned carbon ion beam therapy of liver tumors using enlarged pencil beam overlap. <i>Radiotherapy and Oncology</i> , 2014 , 113, 290-5	5.3	26

158	Tissue decomposition from dual energy CT data for MC based dose calculation in particle therapy. <i>Medical Physics</i> , 2014 , 41, 061714	4.4	75
157	Highly effective treatment of skull base chordoma with carbon ion irradiation using a raster scan technique in 155 patients: first long-term results. <i>Cancer</i> , 2014 , 120, 3410-7	6.4	97
156	A method to increase the nominal range resolution of a stack of parallel-plate ionization chambers. <i>Physics in Medicine and Biology</i> , 2014 , 59, 5501-15	3.8	8
155	SU-E-T-509: Validation of the Use of OSLD for Carbon Beam Remote Dosimetry. <i>Medical Physics</i> , 2014 , 41, 344-344	4.4	
154	Light-Ion Radiation Therapy Planning 2014 , 487-504		1
153	Engineering cell-fluorescent ion track hybrid detectors. <i>Radiation Oncology</i> , 2013 , 8, 141	4.2	18
152	Preclinical investigations towards the first spacer gel application in prostate cancer treatment during particle therapy at HIT. <i>Radiation Oncology</i> , 2013 , 8, 134	4.2	13
151	Accuracy of robotic patient positioners used in ion beam therapy. <i>Radiation Oncology</i> , 2013 , 8, 124	4.2	11
150	Hypofractionated carbon ion therapy delivered with scanned ion beams for patients with hepatocellular carcinoma - feasibility and clinical response. <i>Radiation Oncology</i> , 2013 , 8, 59	4.2	63
149	Fluorescent nuclear track detectors as a tool for ion-beam therapy research. <i>Radiation Measurements</i> , 2013 , 56, 267-272	1.5	33
148	MRI-based simulation of treatment plans for ion radiotherapy in the brain region. <i>Radiotherapy and Oncology</i> , 2013 , 109, 414-8	5.3	46
147	Phase I study evaluating the treatment of patients with locally advanced pancreatic cancer with carbon ion radiotherapy: the PHOENIX-01 trial. <i>BMC Cancer</i> , 2013 , 13, 419	4.8	21
146	Imaging dose assessment for IGRT in particle beam therapy. <i>Radiotherapy and Oncology</i> , 2013 , 109, 409-13	5.3	13
145	Dynamic Target Definition: a novel approach for PTV definition in ion beam therapy. <i>Radiotherapy and Oncology</i> , 2013 , 107, 227-33	5.3	9
144	Ion range estimation by using dual energy computed tomography. <i>Zeitschrift Fur Medizinische Physik</i> , 2013 , 23, 300-13	7.6	41
143	High-accuracy fluence determination in ion beams using fluorescent nuclear track detectors. <i>Radiation Measurements</i> , 2013 , 56, 294-298	1.5	22
142	Subcellular spatial correlation of particle traversal and biological response in clinical ion beams. <i>International Journal of Radiation Oncology Biology Physics</i> , 2013 , 87, 1141-7	4	20
141	Dosimetry auditing procedure with alanine dosimeters for light ion beam therapy. <i>Radiotherapy and Oncology</i> , 2013 , 108, 99-106	5.3	19

140	Dosimetry in clinical static magnetic fields using plastic scintillation detectors. <i>Radiation Measurements</i> , 2013 , 56, 357-360	1.5	24
139	Ion range measurements using fluorescent nuclear track detectors. <i>Radiation Measurements</i> , 2013 , 56, 342-346	1.5	8
138	Experimental characterization of a prototype detector system for carbon ion radiography and tomography. <i>Physics in Medicine and Biology</i> , 2013 , 58, 413-27	3.8	45
137	MRI-based treatment plan simulation and adaptation for ion radiotherapy using a classification-based approach. <i>Radiation Oncology</i> , 2013 , 8, 51	4.2	52
136	Influence of the delta ray production threshold on water-to-air stopping power ratio calculations for carbon ion beam radiotherapy. <i>Physics in Medicine and Biology</i> , 2013 , 58, 145-58	3.8	10
135	High-resolution fluence verification for treatment plan specific QA in ion beam radiotherapy. <i>Physics in Medicine and Biology</i> , 2013 , 58, 1725-38	3.8	4
134	Spatial correlation between traversal and cellular response in ion radiotherapy ¶Towards single track spectroscopy. <i>Radiation Measurements</i> , 2013 , 56, 285-289	1.5	14
133	Analysis of inter- and intrafraction accuracy of a commercial thermoplastic mask system used for image-guided particle radiation therapy. <i>Journal of Radiation Research</i> , 2013 , 54 Suppl 1, i69-76	2.4	10
132	Proton and carbon ion radiotherapy for primary brain tumors and tumors of the skull base. <i>Acta Oncologica</i> , 2013 , 52, 1504-9	3.2	44
131	Prospective evaluation of early treatment outcome in patients with meningiomas treated with particle therapy based on target volume definition with MRI and 68Ga-DOTATOC-PET. <i>Acta Oncologica</i> , 2013 , 52, 514-20	3.2	59
130	Evaluation of different fiducial markers for image-guided radiotherapy and particle therapy. <i>Journal of Radiation Research</i> , 2013 , 54 Suppl 1, i61-8	2.4	66
129	Ion track reconstruction in 3D using alumina-based fluorescent nuclear track detectors. <i>Physics in Medicine and Biology</i> , 2013 , 58, N251-66	3.8	14
128	Non-invasive monitoring of therapeutic carbon ion beams in a homogeneous phantom by tracking of secondary ions. <i>Physics in Medicine and Biology</i> , 2013 , 58, 3755-73	3.8	49
127	The more important heavy charged particle radiotherapy of the future is more likely to be with heavy ions rather than protons. <i>Medical Physics</i> , 2013 , 40, 090601	4.4	10
126	Upgrade and benchmarking of a 4D treatment planning system for scanned ion beam therapy. <i>Medical Physics</i> , 2013 , 40, 051722	4.4	48
125	Phase I/II trial evaluating carbon ion radiotherapy for the treatment of recurrent rectal cancer: the PANDORA-01 trial. <i>BMC Cancer</i> , 2012 , 12, 137	4.8	32
124	Treatment of pediatric patients and young adults with particle therapy at the Heidelberg Ion Therapy Center (HIT): establishment of workflow and initial clinical data. <i>Radiation Oncology</i> , 2012 , 7, 170	4.2	38
123	Comparison of intensity modulated radiotherapy (IMRT) with intensity modulated particle therapy (IMPT) using fixed beams or an ion gantry for the treatment of patients with skull base meningiomas. <i>Radiation Oncology</i> , 2012 , 7, 44	4.2	23

122	Initial recombination in the track of heavy charged particles: numerical solution for air filled ionization chambers. <i>Acta Oncologica</i> , 2012 , 51, 368-75	3.2	6
121	Characterization of a flat-panel detector for ion beam spot measurements. <i>Physics in Medicine and Biology</i> , 2012 , 57, 485-97	3.8	5
120	Experimental study of the water-to-air stopping power ratio of monoenergetic carbon ion beams for particle therapy. <i>Physics in Medicine and Biology</i> , 2012 , 57, 3629-41	3.8	26
119	Quantitative carbon ion beam radiography and tomography with a flat-panel detector. <i>Physics in Medicine and Biology</i> , 2012 , 57, 7957-71	3.8	46
118	Monte Carlo simulations to support start-up and treatment planning of scanned proton and carbon ion therapy at a synchrotron-based facility. <i>Physics in Medicine and Biology</i> , 2012 , 57, 3759-84	3.8	155
117	Two-dimensional silicon-based detectors for ion beam therapy 2012 ,		1
116	Monitoring of ion beam energy by tracking of secondary ions: First measurements in a patient-like phantom 2012 ,		3
115	Study of the capabilities of the Timepix detector for Ion Beam radiotherapy applications 2012 ,		1
114	PERSPECTIVES OF THE PIXEL DETECTOR TIMEPIX FOR NEEDS OF ION BEAM THERAPY 2012 , 616-622		
113	Towards fragment distinction in therapeutic carbon ion beams: A novel experimental approach using the Timepix detector 2012 ,		2
112	3D beam monitoring for ¹² C radiotherapy by tracking of secondary ions using the timepix detector 2012 ,		1
111	A comparison of different experimental methods for general recombination correction for liquid ionization chambers. <i>Physics in Medicine and Biology</i> , 2012 , 57, 7161-75	3.8	13
110	The impact of modeling nuclear fragmentation on delivered dose and radiobiology in ion therapy. <i>Physics in Medicine and Biology</i> , 2012 , 57, 5169-85	3.8	25
109	Investigations of a flat-panel detector for quality assurance measurements in ion beam therapy. <i>Physics in Medicine and Biology</i> , 2012 , 57, 51-68	3.8	10
108	Treatment Planning for Ion Beam Therapy 2012 , 503-525		1
107	Imaging and Tumor Localization for Ion Beam Therapy 2012 , 489-502		
106	Investigations on novel imaging techniques for ion beam therapy: Carbon ion radiography and tomography 2011 ,		2
105	Carbon ion radiotherapy performed as re-irradiation using active beam delivery in patients with tumors of the brain, skull base and sacral region. <i>Radiotherapy and Oncology</i> , 2011 , 98, 63-7	5.3	54

104	Assessment of early toxicity and response in patients treated with proton and carbon ion therapy at the Heidelberg ion therapy center using the raster scanning technique. <i>International Journal of Radiation Oncology Biology Physics</i> , 2011 , 81, e793-801	4	33
103	Measurement of secondary radiation during ion beam therapy with the pixel detector Timepix. <i>Journal of Instrumentation</i> , 2011 , 6, C11014-C11014	1	12
102	Patient position verification in ion-beam therapy using ion-beam radiography and fiducial markers. <i>Journal of Instrumentation</i> , 2011 , 6, C11008-C11008	1	
101	Dose response of alanine detectors irradiated with carbon ion beams. <i>Medical Physics</i> , 2011 , 38, 1859-66	4.4	23
100	A thin layer fiber-coupled luminescence dosimeter based on Al ₂ O ₃ :C. <i>Radiation Measurements</i> , 2011 , 46, 1607-1609	1.5	9
99	Phase i study evaluating the treatment of patients with hepatocellular carcinoma (HCC) with carbon ion radiotherapy: the PROMETHEUS-01 trial. <i>BMC Cancer</i> , 2011 , 11, 67	4.8	29
98	Temporal lobe reactions after radiotherapy with carbon ions: incidence and estimation of the relative biological effectiveness by the local effect model. <i>International Journal of Radiation Oncology Biology Physics</i> , 2011 , 80, 815-23	4	43
97	Acute toxicity of combined photon IMRT and carbon ion boost for intermediate-risk prostate cancer - acute toxicity of 12C for PC. <i>Acta Oncologica</i> , 2011 , 50, 784-90	3.2	14
96	Analytical expressions for water-to-air stopping-power ratios relevant for accurate dosimetry in particle therapy. <i>Physics in Medicine and Biology</i> , 2011 , 56, 2515-33	3.8	21
95	Test of an amorphous silicon detector in medical proton beams. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011 , 633, S259-S261	1.2	8
94	The application of amorphous track models to study cell survival in heavy ions beams. <i>Radiation Protection Dosimetry</i> , 2011 , 143, 232-6	0.9	1
93	TU-E-BRB-10: Investigation of the Water-to-Air Stopping Power Ratio for Carbon Ion Beam Dosimetry Based on Experimental Data and FLUKA Simulation. <i>Medical Physics</i> , 2011 , 38, 3768-3769	4.4	
92	Detection and track visualization of primary and secondary radiation in hadron therapy beams with the pixel detector Timepix 2010 ,		9
91	Study of Gafchromic EBT film response over a large dose range. <i>Physics in Medicine and Biology</i> , 2010 , 55, N281-90	3.8	23
90	Dosimetric properties of Gafchromic(R) EBT films in medical carbon ion beams. <i>Physics in Medicine and Biology</i> , 2010 , 55, 5557-67	3.8	22
89	Carbon ion radiation therapy for high-risk meningiomas. <i>Radiotherapy and Oncology</i> , 2010 , 95, 54-9	5.3	60
88	Particle therapy at the Heidelberg Ion Therapy Center (HIT) - Integrated research-driven university-hospital-based radiation oncology service in Heidelberg, Germany. <i>Radiotherapy and Oncology</i> , 2010 , 95, 41-4	5.3	93
87	Dosimetric properties of Gafchromic EBT films in monoenergetic medical ion beams. <i>Physics in Medicine and Biology</i> , 2010 , 55, 3741-51	3.8	75

86	Homogeneity of Gafchromic EBT2 film. <i>Medical Physics</i> , 2010 , 37, 1753-6	4.4	109
85	Heidelberg Ion Therapy Center (HIT): Initial clinical experience in the first 80 patients. <i>Acta Oncologica</i> , 2010 , 49, 1132-40	3.2	72
84	Investigation of the dosimetric impact of a Ni-Ti fiducial marker in carbon ion and proton beams. <i>Acta Oncologica</i> , 2010 , 49, 1160-4	3.2	8
83	Dose- and LET-painting with particle therapy. <i>Acta Oncologica</i> , 2010 , 49, 1170-6	3.2	96
82	Dosimetry for ion beam radiotherapy. <i>Physics in Medicine and Biology</i> , 2010 , 55, R193-234	3.8	125
81	COTS Silicon diodes as radiation detectors in proton and heavy charged particle radiotherapy 1. <i>Radiation and Environmental Biophysics</i> , 2010 , 49, 365-71	2	14
80	Randomized phase II study evaluating a carbon ion boost applied after combined radiochemotherapy with temozolomide versus a proton boost after radiochemotherapy with temozolomide in patients with primary glioblastoma: the CLEOPATRA trial. <i>BMC Cancer</i> , 2010 , 10, 478	4.8	66
79	Randomised phase I/II study to evaluate carbon ion radiotherapy versus fractionated stereotactic radiotherapy in patients with recurrent or progressive gliomas: the CINDERELLA trial. <i>BMC Cancer</i> , 2010 , 10, 533	4.8	61
78	Treatment of patients with atypical meningiomas Simpson grade 4 and 5 with a carbon ion boost in combination with postoperative photon radiotherapy: the MARCIE trial. <i>BMC Cancer</i> , 2010 , 10, 615	4.8	35
77	Non-randomized therapy trial to determine the safety and efficacy of heavy ion radiotherapy in patients with non-resectable osteosarcoma. <i>BMC Cancer</i> , 2010 , 10, 96	4.8	47
76	Gafchromic [®] EBT films for ion dosimetry. <i>Radiation Measurements</i> , 2010 , 45, 1268-1270	1.5	9
75	Amorphous track models: A numerical comparison study. <i>Radiation Measurements</i> , 2010 , 45, 1406-1409	1.5	28
74	Liquid ionization chambers for LET determination. <i>Radiation Measurements</i> , 2010 , 45, 1109-1111	1.5	1
73	SU-GG-T-446: Minimizing Energy Changes in Particle Therapy Using Voronoi Partitions. <i>Medical Physics</i> , 2010 , 37, 3289-3289	4.4	
72	SU-GG-T-413: Comparison of Out-Of-Field Neutron Equivalent Doses in Scanning Carbon and Proton Therapies for Cranial Fields. <i>Medical Physics</i> , 2010 , 37, 3281-3281	4.4	
71	SU-GG-T-453: A Beam Angle Selection Algorithm for Particle Therapy. <i>Medical Physics</i> , 2010 , 37, 3290-3290	4.4	1
70	Medical physics aspects of particle therapy. <i>Radiation Protection Dosimetry</i> , 2009 , 137, 156-66	0.9	36
69	Test of the nuclear interaction model in SHIELD-HIT and comparison to energy distributions from GEANT4. <i>Physics in Medicine and Biology</i> , 2009 , 54, N509-17	3.8	11

68	Monte Carlo simulations on the water-to-air stopping power ratio for carbon ion dosimetry. <i>Medical Physics</i> , 2009 , 36, 1230-5	4.4	22
67	Analysis of uncertainties in Gafchromic EBT film dosimetry of photon beams. <i>Physics in Medicine and Biology</i> , 2008 , 53, 7013-27	3.8	111
66	Antiproton radiotherapy. <i>Radiotherapy and Oncology</i> , 2008 , 86, 14-9	5.3	24
65	The antiproton depth-dose curve in water. <i>Physics in Medicine and Biology</i> , 2008 , 53, 793-805	3.8	22
64	The future of heavy ion radiotherapy. <i>Medical Physics</i> , 2008 , 35, 5653-63	4.4	45
63	Use of Gafchromic [®] EBT films in heavy ion therapy. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008 , 591, 171-173 ^{1,2}	1.2	23
62	Antiproton therapy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008 , 266, 530-534	1.2	11
61	What is the clinically relevant relative biologic effectiveness? A warning for fractionated treatments with high linear energy transfer radiation: in regard to Da ⁺ and Toma-DA ⁺ . (Int J Radiat Oncol Biol Phys 2008;70:867-874). <i>International Journal of Radiation Oncology Biology Physics</i> , 2008 , 70, 1614, author reply 1614-5	4	2
60	The relative biological effectiveness of proton and ion beams. <i>Zeitschrift Fur Medizinische Physik</i> , 2008 , 18, 276-85	7.6	24
59	State of the Art in Hadron Therapy. <i>AIP Conference Proceedings</i> , 2007 ,	0	4
58	The ratio of stopping powers of water and air for dosimetry applications in tumor therapy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 256, 561-564	1.2	20
57	Carbon ion radiotherapy of skull base chondrosarcomas. <i>International Journal of Radiation Oncology Biology Physics</i> , 2007 , 67, 171-7	4	153
56	Effectiveness of carbon ion radiotherapy in the treatment of skull-base chordomas. <i>International Journal of Radiation Oncology Biology Physics</i> , 2007 , 68, 449-57	4	24 ⁰
55	Current status and new developments in ion therapy. <i>Strahlentherapie Und Onkologie</i> , 2007 , 183, 295-300.3	4.3	34
54	The influence of metal artefacts on the range of ion beams. <i>Physics in Medicine and Biology</i> , 2007 , 52, 635-44	3.8	68
53	Specifying carbon ion doses for radiotherapy: the heidelberg approach. <i>Journal of Radiation Research</i> , 2007 , 48 Suppl A, A87-95	2.4	14
52	On the cost-effectiveness of Carbon ion radiation therapy for skull base chordoma. <i>Radiotherapy and Oncology</i> , 2007 , 83, 133-8	5.3	30
51	The Influence of Stopping Powers upon Dosimetry for Radiation Therapy with Energetic Ions. <i>Advances in Quantum Chemistry</i> , 2007 , 289-306	1.4	15

50	Radiation therapy with charged particles. <i>Seminars in Radiation Oncology</i> , 2006 , 16, 249-59	5.5	127
49	Ranges of ions in metals for use in particle treatment planning. <i>Physics in Medicine and Biology</i> , 2006 , 51, N173-7	3.8	11
48	Calculation of stopping power ratios for carbon ion dosimetry. <i>Physics in Medicine and Biology</i> , 2006 , 51, 2279-92	3.8	57
47	TU-D-224A-04: How Much Better Are Carbon Beams. <i>Medical Physics</i> , 2006 , 33, 2203-2203	4.4	
46	Heavy Ion Radiotherapy 2006 , 365-377		1
45	Experience with carbon ion radiotherapy at GSI. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005 , 241, 717-720	1.2	6
44	Therapy strategies for locally advanced adenoid cystic carcinomas using modern radiation therapy techniques. <i>Cancer</i> , 2005 , 104, 338-44	6.4	131
43	Biological dose optimization using ramp-like dose gradients in ion irradiation fields. <i>Physica Medica</i> , 2005 , 21, 107-11	2.7	10
42	Radiation hazard during a manned mission to Mars. <i>Zeitschrift Fur Medizinische Physik</i> , 2004 , 14, 267-72	7.6	9
41	A calibration procedure for beam monitors in a scanned beam of heavy charged particles. <i>Medical Physics</i> , 2004 , 31, 1009-13	4.4	39
40	Influence of iodine contrast agent on the range of ion beams for radiotherapy. <i>Medical Physics</i> , 2004 , 31, 767-73	4.4	28
39	Results of carbon ion radiotherapy in 152 patients. <i>International Journal of Radiation Oncology Biology Physics</i> , 2004 , 58, 631-40	4	243
38	Evaluation of therapeutic potential of heavy ion therapy for patients with locally advanced prostate cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , 2004 , 58, 89-97	4	36
37	Treatment planning for scanned ion beams. <i>Radiotherapy and Oncology</i> , 2004 , 73 Suppl 2, S80-5	5.3	28
36	Treatment planning for carbon ion radiotherapy in Germany: review of clinical trials and treatment planning studies. <i>Radiotherapy and Oncology</i> , 2004 , 73 Suppl 2, S86-91	5.3	19
35	The Heidelberg Ion Therapy Center. <i>Radiotherapy and Oncology</i> , 2004 , 73 Suppl 2, S186-90	5.3	148
34	Comments to the forum of M. Goitein. <i>Zeitschrift Fur Medizinische Physik</i> , 2004 , 14, 200; author reply 201	7.6	1
33	Heavy ion therapy: status and perspectives. <i>Technology in Cancer Research and Treatment</i> , 2003 , 2, 377-87		39

32	Treatment planning intercomparison for spinal chordomas using intensity-modulated photon radiation therapy (IMRT) and carbon ions. <i>Physics in Medicine and Biology</i> , 2003 , 48, 2617-31	3.8	16
31	Influence of setup errors on spinal cord dose and treatment plan quality for cervical spine tumours: a phantom study for photon IMRT and heavy charged particle radiotherapy. <i>Physics in Medicine and Biology</i> , 2003 , 48, 3171-89	3.8	12
30	Optimization of radiation therapy for locally advanced adenoid cystic carcinomas with infiltration of the skull base using photon intensity-modulated radiation therapy (IMRT) and a carbon ion boost. <i>Strahlentherapie Und Onkologie</i> , 2003 , 179, 345-51	4.3	19
29	Carbon ion radiotherapy for chordomas and low-grade chondrosarcomas of the skull base. Results in 67 patients. <i>Strahlentherapie Und Onkologie</i> , 2003 , 179, 598-605	4.3	84
28	Feasibility and toxicity of combined photon and carbon ion radiotherapy for locally advanced adenoid cystic carcinomas. <i>International Journal of Radiation Oncology Biology Physics</i> , 2003 , 56, 391-8	4	54
27	Radiation tolerance of the rat spinal cord after single and split doses of photons and carbon ions. <i>Radiation Research</i> , 2003 , 160, 536-42	3.1	32
26	Radiotherapy for chordomas and low-grade chondrosarcomas of the skull base with carbon ions. <i>International Journal of Radiation Oncology Biology Physics</i> , 2002 , 53, 36-42	4	96
25	Acute radiation-induced toxicity of heavy ion radiotherapy delivered with intensity modulated pencil beam scanning in patients with base of skull tumors. <i>Radiotherapy and Oncology</i> , 2002 , 64, 189-95 ^{5.3}	5.3	39
24	Three-dimensional accuracy and interfractional reproducibility of patient fixation and positioning using a stereotactic head mask system. <i>International Journal of Radiation Oncology Biology Physics</i> , 2001 , 49, 1493-504	4	90
23	Treatment planning for heavy ion radiotherapy: clinical implementation and application. <i>Physics in Medicine and Biology</i> , 2001 , 46, 1101-16	3.8	117
22	Relation between carbon ion ranges and x-ray CT numbers. <i>Medical Physics</i> , 2001 , 28, 701-3	4.4	85
21	A method for determining the alignment accuracy of the treatment table axis at an isocentric irradiation facility. <i>Physics in Medicine and Biology</i> , 2001 , 46, N19-26	3.8	14
20	Effective point of measurement of cylindrical ionization chambers for heavy charged particles. <i>Physics in Medicine and Biology</i> , 2000 , 45, 599-607	3.8	25
19	Selection of beam angles for radiotherapy of skull base tumours using charged particles. <i>Physics in Medicine and Biology</i> , 2000 , 45, 1229-41	3.8	17
18	Quality management of medical physics issues at the German heavy ion therapy project. <i>Medical Physics</i> , 2000 , 27, 725-36	4.4	28
17	Quality assurance for a treatment planning system in scanned ion beam therapy. <i>Medical Physics</i> , 2000 , 27, 1588-600	4.4	41
16	Treatment planning for heavy-ion radiotherapy: physical beam model and dose optimization. <i>Physics in Medicine and Biology</i> , 2000 , 45, 3299-317	3.8	421
15	Determination of water absorbed dose in a carbon ion beam using thimble ionization chambers. <i>Physics in Medicine and Biology</i> , 1999 , 44, 1193-206	3.8	61

14	A system for three-dimensional dosimetric verification of treatment plans in intensity-modulated radiotherapy with heavy ions. <i>Medical Physics</i> , 1999 , 26, 2125-32	4.4	83
13	Erste Schwerionenbestrahlung von Patienten in Europa: Medizinphysikalische Aspekte. <i>Zeitschrift Fur Medizinische Physik</i> , 1999 , 9, 88-95	7.6	7
12	Positron emission tomography for quality assurance of cancer therapy with light ion beams. <i>Nuclear Physics A</i> , 1999 , 654, 1047c-1050c	1.3	72
11	Treatment planning for light ions: how to take into account relative biological effectiveness (RBE). <i>Strahlentherapie Und Onkologie</i> , 1999 , 175 Suppl 2, 12-4	4.3	6
10	Treatment planning for the heavy-ion facility at GSI. <i>Strahlentherapie Und Onkologie</i> , 1999 , 175 Suppl 2, 15-7	4.3	5
9	The application of PET to quality assurance of heavy-ion tumor therapy. <i>Strahlentherapie Und Onkologie</i> , 1999 , 175 Suppl 2, 33-6	4.3	43
8	Quality assurance at the heavy-ion therapy facility at GSI. <i>Strahlentherapie Und Onkologie</i> , 1999 , 175 Suppl 2, 36-8	4.3	5
7	Response of pig lung to irradiation with accelerated ^{12}C -ions. <i>Radiation and Environmental Biophysics</i> , 1999 , 38, 185-94	2	7
6	Analysis of data on low energy $\pi^- \rightarrow \pi^0$ reaction I. Total cross sections. <i>Nuclear Physics A</i> , 1995 , 592, 413-442	1.3	10
5	Extraction of total cross section data for the $\pi^- p \rightarrow \pi^+ \pi^- n$ reaction. <i>Physical Review C</i> , 1993 , 47, R447-R450	1.7	5
4	$\pi^+ \pi^-$ -angular correlations for $\pi^- p \rightarrow \pi^+ \pi^- n$ in the region of the Delta dominance. <i>Physical Review C</i> , 1993 , 48, 981-1002	2.7	13
3	Chiral symmetry and the near threshold pion-induced 2π production on the nucleon: (III). Perturbative estimate of initial and final state interactions. <i>Nuclear Physics A</i> , 1993 , 561, 557-581	1.3	5
2	Chiral symmetry and the near-threshold pion-induced 2π production on the nucleon. <i>Nuclear Physics A</i> , 1992 , 541, 675-686	1.3	16
1	Chiral symmetry and the near threshold pion-induced 2π production on the nucleon. <i>Nuclear Physics A</i> , 1990 , 511, 733-746	1.3	21