

# Hermann Fuchs

## List of Publications by Year in descending order

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31  
papers

541  
citations

567281

15  
h-index

642732

23  
g-index

31  
all docs

31  
docs citations

31  
times ranked

471  
citing authors

#	ARTICLE	IF	CITATIONS
1	Characteristic of EBT-XD and EBT3 radiochromic film dosimetry for photon and proton beams. <i>Physics in Medicine and Biology</i> , 2018, 63, 065007.	3.0	62
2	Can particle beam therapy be improved using helium ions? â€“ a planning study focusing on pediatric patients. <i>Acta Oncol</i> , 2016, 55, 751-759.	1.8	47
3	Magnetic field effects on particle beams and their implications for dose calculation in MR-guided particle therapy. <i>Medical Physics</i> , 2017, 44, 1149-1156.	3.0	47
4	Evaluation of electromagnetic and nuclear scattering models in GATE/Geant4 for proton therapy. <i>Medical Physics</i> , 2019, 46, 2444-2456.	3.0	39
5	Implementation of dosimetry equipment and phantoms at the MedAustron light ion beam therapy facility. <i>Medical Physics</i> , 2018, 45, 352-369.	3.0	31
6	A pencil beam algorithm for helium ion beam therapy. <i>Medical Physics</i> , 2012, 39, 6726-6737.	3.0	25
7	A pencil beam algorithm for magnetic resonance image-guided proton therapy. <i>Medical Physics</i> , 2018, 45, 2195-2204.	3.0	25
8	Technical Note: GATE-RTion: a GATE/Geant4 release for clinical applications in scanned ion beam therapy. <i>Medical Physics</i> , 2020, 47, 3675-3681.	3.0	25
9	A GATE/Geant4 beam model for the MedAustron non-isocentric proton treatment plans quality assurance. <i>Physica Medica</i> , 2020, 71, 115-123.	0.7	25
10	Roadmap: helium ion therapy. <i>Physics in Medicine and Biology</i> , 2022, 67, 15TR02.	3.0	24
11	Comparison of basic features of proton and helium ion pencil beams in water using GATE. <i>Zeitschrift Fur Medizinische Physik</i> , 2012, 22, 170-178.	1.5	22
12	Clinical implementation and commissioning of the MedAustron Particle Therapy Accelerator for non-isocentric scanned proton beam treatments. <i>Medical Physics</i> , 2020, 47, 380-392.	3.0	20
13	Implementation of spot scanning dose optimization and dose calculation for helium ions in Hyperion. <i>Medical Physics</i> , 2015, 42, 5157-5166.	3.0	19
14	Evaluation of GATE/Geant4 multiple Coulomb scattering algorithms for a 160 MeV proton beam. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2017, 410, 122-126.	1.4	17
15	Experimental benchmarking of RayStation proton dose calculation algorithms inside and outside the target region in heterogeneous phantom geometries. <i>Physica Medica</i> , 2020, 76, 182-193.	0.7	15
16	Implementation of a dose calculation algorithm based on Monte Carlo simulations for treatment planning towards MRI guided ion beam therapy. <i>Physica Medica</i> , 2020, 74, 155-165.	0.7	13
17	Benchmarking a GATE/Geant4 Monte Carlo model for proton beams in magnetic fields. <i>Medical Physics</i> , 2020, 47, 223-233.	3.0	12
18	Dose rather than fluence-averaged LET should be used as a single parameter descriptor of proton beam quality for radiochromic film dosimetry. <i>Medical Physics</i> , 2020, 47, 2289-2299.	3.0	12

#	ARTICLE	IF	CITATIONS
19	MR-guided proton therapy: Impact of magnetic fields on the detector response. Medical Physics, 2021, 48, 2572-2579.	3.0	12
20	Computer-assisted beam modeling for particle therapy. Medical Physics, 2021, 48, 841-851.	3.0	12
21	Towards offline PET monitoring of proton therapy at MedAustron. Zeitschrift Fur Medizinische Physik, 2019, 29, 59-65.	1.5	11
22	Characterization of EBT3 radiochromic films for dosimetry of proton beams in the presence of magnetic fields. Medical Physics, 2019, 46, 3278-3284.	3.0	10
23	Characterization of the PTW-34089 type 147 mm diameter large-area ionization chamber for use in light-ion beams. Physics in Medicine and Biology, 2020, 65, 17NT02.	3.0	5
24	Benchmarking GATE/Geant4 for $^{16}\text{O}$ ion beam therapy. Physics in Medicine and Biology, 2017, 62, N474-N484.	3.0	4
25	New data on direct ion storage dosimeters. Radiation Protection Dosimetry, 2007, 128, 120-123.	0.8	3
26	Technical Note: Design and commissioning of a water phantom for proton dosimetry in magnetic fields. Medical Physics, 2021, 48, 505-512.	3.0	3
27	The practical radius of a pencil beam in proton therapy. Zeitschrift Fur Medizinische Physik, 2021, 31, 166-174.	1.5	1
28	Investigation of prompt $\gamma$ ray emission for online monitoring in ion therapy. Journal of Physics: Conference Series, 2015, 599, 012042.	0.4	0
29	EP-1504: Monte Carlo modeling of non-isocentric proton pencil beam scanning treatments. Radiotherapy and Oncology, 2017, 123, S806-S807.	0.6	0
30	An external perpendicular magnetic field does not influence survival and DNA damage after proton and carbon ion irradiation in human cancer cells. Zeitschrift Fur Medizinische Physik, 2022, , .	1.5	0
31	Efficient full Monte Carlo modelling and multi-energy generative model development of an advanced X-ray device. Zeitschrift Fur Medizinische Physik, 2022, , .	1.5	0