

Andrea Mairani

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/12081711/publications.pdf>

Version: 2024-02-01

42
papers

1,765
citations

430874

18
h-index

276875

41
g-index

44
all docs

44
docs citations

44
times ranked

2062
citing authors

#	ARTICLE	IF	CITATIONS
1	Combined DNA Damage Repair Interference and Ion Beam Therapy: Development, Benchmark, and Clinical Implications of a Mechanistic Biological Model. <i>International Journal of Radiation Oncology Biology Physics</i> , 2022, 112, 802-817.	0.8	6
2	Dual-layer spectral CT for proton, helium, and carbon ion beam therapy planning of brain tumors. <i>Journal of Applied Clinical Medical Physics</i> , 2022, 23, .	1.9	3
3	How can we consider variable RBE and LETd prediction during clinical practice? A pediatric case report at the Normandy Proton Therapy Centre using an independent dose engine. <i>Radiation Oncology</i> , 2022, 17, 23.	2.7	4
4	The Impact of Sub-Millisecond Damage Fixation Kinetics on the In Vitro Sparing Effect at Ultra-High Dose Rate in UNIVERSE. <i>International Journal of Molecular Sciences</i> , 2022, 23, 2954.	4.1	6
5	Relative biological effectiveness of single and split helium ion doses in the rat spinal cord increases strongly with linear energy transfer. <i>Radiotherapy and Oncology</i> , 2022, 170, 224-230.	0.6	5
6	Potential of a Second-Generation Dual-Layer Spectral CT for Dose Calculation in Particle Therapy Treatment Planning. <i>Frontiers in Oncology</i> , 2022, 12, 853495.	2.8	5
7	Biological Dose Optimization for Particle Arc Therapy Using Helium and Carbon Ions. <i>International Journal of Radiation Oncology Biology Physics</i> , 2022, 114, 334-348.	0.8	6
8	First application of the BIANCA biophysical model to carbon-ion patient cases. <i>Physics in Medicine and Biology</i> , 2022, , .	3.0	2
9	Spot-scanning hadron arc (SHArc) therapy: A proof of concept using single- and multi-ion strategies with helium, carbon, oxygen, and neon ions. <i>Medical Physics</i> , 2022, 49, 6082-6097.	3.0	6
10	Spot-Scanning Hadron Arc (SHArc) Therapy: A Study With Light and Heavy Ions. <i>Advances in Radiation Oncology</i> , 2021, 6, 100661.	1.2	16
11	FRoG dose computation meets Monte Carlo accuracy for proton therapy dose calculation in lung. <i>Physica Medica</i> , 2021, 86, 66-74.	0.7	6
12	FLASH Dose Rate Helium Ion Beams: First In Vitro Investigations. <i>International Journal of Radiation Oncology Biology Physics</i> , 2021, 111, 1011-1022.	0.8	34
13	The Organ Sparing Potential of Different Biological Optimization Strategies in Proton Therapy. <i>Advances in Radiation Oncology</i> , 2021, 6, 100776.	1.2	5
14	Development and Validation of Single Field Multi-Ion Particle Therapy Treatments. <i>International Journal of Radiation Oncology Biology Physics</i> , 2020, 106, 194-205.	0.8	43
15	FRoG: An independent dose and LET _d prediction tool for proton therapy at ProBeam® facilities. <i>Medical Physics</i> , 2020, 47, 5274-5286.	3.0	14
16	Brainstem NTCP and Dose Constraints for Carbon Ion RT Application and Translation From Japanese to European RBE-Weighted Dose. <i>Frontiers in Oncology</i> , 2020, 10, 531344.	2.8	11
17	Are Further Cross Section Measurements Necessary for Space Radiation Protection or Ion Therapy Applications? Helium Projectiles. <i>Frontiers in Physics</i> , 2020, 8, .	2.1	18
18	Modeling Direct and Indirect Action on Cell Survival After Photon Irradiation under Normoxia and Hypoxia. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3471.	4.1	10

#	ARTICLE	IF	CITATIONS
19	OpenDose: Open-Access Resource for Nuclear Medicine Dosimetry. <i>Journal of Nuclear Medicine</i> , 2020, 61, 1514-1519.	5.0	54
20	Assessment of RBE-Weighted Dose Models for Carbon Ion Therapy Toward Modernization of Clinical Practice at HIT: In Vitro, in Vivo, and in Patients. <i>International Journal of Radiation Oncology Biology Physics</i> , 2020, 108, 779-791.	0.8	39
21	In Vivo Validation of the BIANCA Biophysical Model: Benchmarking against Rat Spinal Cord RBE Data. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3973.	4.1	12
22	Carbon ion dosimetry on a fluorescent nuclear track detector using widefield microscopy. <i>Physics in Medicine and Biology</i> , 2020, 65, 21NT02.	3.0	5
23	Biophysical modeling and experimental validation of relative biological effectiveness (RBE) for 4He ion beam therapy. <i>Radiation Oncology</i> , 2019, 14, 123.	2.7	37
24	Dosimetric validation of Monte Carlo and analytical dose engines with raster-scanning 1H, 4He, 12C, and 16O ion-beams using an anthropomorphic phantom. <i>Physica Medica</i> , 2019, 64, 123-131.	0.7	18
25	3D Monte Carlo bone marrow dosimetry for Lu-177-PSMA therapy with guidance of non-invasive 3D localization of active bone marrow via Tc-99m-anti-granulocyte antibody SPECT/CT. <i>EJNMMI Research</i> , 2019, 9, 76.	2.5	21
26	FLUKA particle therapy tool for Monte Carlo independent calculation of scanned proton and carbon ion beam therapy. <i>Physics in Medicine and Biology</i> , 2019, 64, 075012.	3.0	41
27	Impact of TPS calculation algorithms on dose delivered to the patient in proton therapy treatments. <i>Physics in Medicine and Biology</i> , 2019, 64, 075016.	3.0	8
28	Modeling the Effect of Hypoxia and DNA Repair Inhibition on Cell Survival After Photon Irradiation. <i>International Journal of Molecular Sciences</i> , 2019, 20, 6054.	4.1	12
29	Measurement of ^4He charge- and mass-changing cross sections on H, C, O, and Si targets in the energy range 70–220 MeV/u for radiation transport calculations in ion-beam therapy. <i>Physical Review C</i> , 2019, 99, .	2.9	18
30	FROG – A New Calculation Engine for Clinical Investigations with Proton and Carbon Ion Beams at CNAO. <i>Cancers</i> , 2018, 10, 395.	3.7	32
31	Advanced Treatment Planning. <i>Medical Physics</i> , 2018, 45, e1011-e1023.	3.0	13
32	Fast robust dose calculation on GPU for high-precision 1H, 4He, 12C and 16O ion therapy: the FROG platform. <i>Scientific Reports</i> , 2018, 8, 14829.	3.3	41
33	Proton and helium ion radiotherapy for meningioma tumors: a Monte Carlo-based treatment planning comparison. <i>Radiation Oncology</i> , 2018, 13, 2.	2.7	36
34	Monte Carlo simulations of a low energy proton beamline for radiobiological experiments. <i>Acta Oncologica</i> , 2017, 56, 779-786.	1.8	24
35	Development of the open-source dose calculation and optimization toolkit matRad. <i>Medical Physics</i> , 2017, 44, 2556-2568.	3.0	178
36	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.	2.7	75

#	ARTICLE	IF	CITATIONS
37	Quantitative assessment of radiation dose and fractionation effects on normal tissue by utilizing a novel lung fibrosis index model. <i>Radiation Oncology</i> , 2017, 12, 172.	2.7	16
38	The FLUKA Code: An Accurate Simulation Tool for Particle Therapy. <i>Frontiers in Oncology</i> , 2016, 6, 116.	2.8	182
39	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.	1.8	72
40	Overview of the FLUKA code. <i>Annals of Nuclear Energy</i> , 2015, 82, 10-18.	1.8	540
41	Phase Space Generation for Proton and Carbon Ion Beams for External Usersâ€™ Applications at the Heidelberg Ion Therapy Center. <i>Frontiers in Oncology</i> , 2015, 5, 297.	2.8	33
42	Monte Carlo-based parametrization of the lateral dose spread for clinical treatment planning of scanned proton and carbon ion beams. <i>Journal of Radiation Research</i> , 2013, 54, i91-i96.	1.6	58