Lorenzo Brualla

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8801651/publications.pdf

Version: 2024-02-01

60 papers	1,419 citations	471509 17 h-index	345221 36 g-index
60 all docs	60 docs citations	60 times ranked	1363 citing authors

#	Article	IF	Citations
1	The American Brachytherapy Society consensus guidelines for plaque brachytherapy of uveal melanoma and retinoblastoma. Brachytherapy, 2014, 13, 1-14.	0.5	272
2	A<scp>PENELOPE</scp>â€based system for the automated Monte Carlo simulation of clinacs and voxelized geometriesâ€”application to farâ€fromâ€axis fields. Medical Physics, 2011, 38, 5887-5895.	3.0	217
3	AAA and PBC calculation accuracy in the surface build-up region in tangential beam treatments. Phantom and breast case study with the Monte Carlo code penelope. Radiotherapy and Oncology, 2009, 93, 94-101.	0.6	79
4	PRIMO: A graphical environment for the Monte Carlo simulation of Varian and Elekta linacs. Strahlentherapie Und Onkologie, 2013, 189, 881-886.	2.0	72
5	Single-Walled Carbon Nanotubes:â€‰ Efficient Nanomaterials for Separation and On-Board Vehicle Storage of Hydrogen and Methane Mixture at Room Temperature?. Journal of Physical Chemistry C, 2007, 111, 5250-5257.	3.1	59
6	Higher order and infinite Trotter-number extrapolations in path integral Monte Carlo. Journal of Chemical Physics, 2004, 121, 636-643.	3.0	47
7	Efficient Monte Carlo simulation of multileaf collimators using geometry-related variance-reduction techniques. Physics in Medicine and Biology, 2009, 54, 4131-4149.	3.0	41
8	Monte Carlo simulation of TrueBeam flattening-filter-free beams using Varian phase-space files: Comparison with experimental data. Medical Physics, 2014, 41, 051707.	3.0	40
9	A combined approach of variance-reduction techniques for the efficient Monte Carlo simulation of linacs. Physics in Medicine and Biology, 2012, 57, 3013-3024.	3.0	36
10	Monte Carlo systems used for treatment planning and dose verification. Strahlentherapie Und Onkologie, 2017, 193, 243-259.	2.0	36
11	A geometrical model for the Monte Carlo simulation of the TrueBeam linac. Physics in Medicine and Biology, 2015, 60, N219-N229.	3.0	33
12	Comparison between PENELOPE and electron Monte Carlo simulations of electron fields used in the treatment of conjunctival lymphoma. Physics in Medicine and Biology, 2009, 54, 5469-5481.	3.0	28
13	Monte Carlo based water/medium stopping-power ratios for various ICRP and ICRU tissues. Physics in Medicine and Biology, 2007, 52, 6475-6483.	3.0	26
14	PENELOPE/PRIMO-calculated photon and electron spectra from clinical accelerators. Radiation Oncology, 2019, 14, 6.	2.7	26
15	Quantum Monte Carlo Algorithm Based on Two-Body Density Functional Theory for Fermionic Many-Body Systems: Application toHe3. Physical Review Letters, 2004, 93, 170202.	7.8	22
16	Accurate estimation of dose distributions inside an eye irradiated with 106Ru plaques. Strahlentherapie Und Onkologie, 2013, 189, 68-73.	2.0	22
17	Technical Note: Influence of the phantom material on the absorbedâ€dose energy dependence of the EBT3 radiochromic film for photons in the energy range 3 keVâ€“18 MeV. Medical Physics, 2014, 41, 112103.	3.0	19
18	On the efficiency of azimuthal and rotational splitting for Monte Carlo simulation of clinical linear accelerators. Radiation Physics and Chemistry, 2010, 79, 929-932.	2.8	17

#	Article	IF	Citations
19	Single pencil beam benchmark of a module for Monte Carlo simulation of proton transport in the PENELOPE code. Medical Physics, 2021, 48, 456-476.	3.0	16
20	Spin-orbit induced backflow in neutron matter with auxiliary field diffusion Monte Carlo method. Physical Review C, 2003, 67, .	2.9	15
21	Monte Carlo Simulations Applied to Conjunctival Lymphoma Radiotherapy Treatment. Strahlentherapie Und Onkologie, 2011, 187, 492-498.	2.0	15
22	Electron Irradiation of Conjunctival Lymphomaâ€"Monte Carlo Simulation of the Minute Dose Distribution andÂTechnique Optimization. International Journal of Radiation Oncology Biology Physics, 2012, 83, 1330-1337.	0.8	15
23	Experimental HPGe coaxial detector response and efficiency compared to Monte Carlo simulations. Applied Radiation and Isotopes, 2016, 108, 64-74.	1.5	15
24	Comment on Monte Carlo calculation of the dose distributions of two 106Ru eye applicators [Radiother Oncol 49 (1998) 191â€"196]. Radiotherapy and Oncology, 2012, 104, 267-268.	0.6	14
25	Efficiency calibration of x-ray HPGe detectors for photons with energies above the Ge K binding energy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 729, 371-380.	1.6	14
26	DPM as a radiation transport engine for PRIMO. Radiation Oncology, 2018, 13, 256.	2.7	14
27	Validation of a Monte Carlo Framework for Out-of-Field Dose Calculations in Proton Therapy. Frontiers in Oncology, 0, 12, .	2.8	14
28	Neon adsorbed in carbon nanotube bundles. Physical Review B, 2004, 70, .	3.2	13
29	Static and thermodynamic properties of low-density supercritical 4Heâ€"breakdown of the Feynmanâ€"Hibbs approximation. Physical Chemistry Chemical Physics, 2009, 11, 9182.	2.8	13
30	Treatment verification using Varianâ€™s dynalog files in the Monte Carlo system PRIMO. Radiation Oncology, 2019, 14, 67.	2.7	13
31	Monte Carlo Simulation of the Treatment of Eye Tumors with ¹⁰⁶Ru Plaques: A Study on Maximum Tumor Height and Eccentric Placement. Ocular Oncology and Pathology, 2015, 1, 2-12.	1.0	12
32	Monte Carlo Estimation of Absorbed Dose Distributions Obtained from Heterogeneous ¹⁰⁶Ru Eye Plaques. Ocular Oncology and Pathology, 2017, 3, 204-209.	1.0	12
33	Technical Note: Study of the electron transport parameters used in <scp>penelope</scp> for the Monte Carlo simulation of Linac targets. Medical Physics, 2015, 42, 2877-2881.	3.0	11
34	Fast Monte Carlo simulation on a voxelized human phantom deformed to a patient. Medical Physics, 2009, 36, 5162-5174.	3.0	10
35	Retinoblastoma external beam photon irradiation with a special â€˜Dâ€™-shaped collimator: a comparison between measurements, Monte Carlo simulation and a treatment planning system calculation. Physics in Medicine and Biology, 2012, 57, 7741-7751.	3.0	10
36	Determination of the optimal statistical uncertainty to perform electron-beam Monte Carlo absorbed dose estimation in the target volume. Cancer Radiotherapie: Journal De La Societe Francaise De Radiotherapie Oncologique, 2010, 14, 89-95.	1.4	8

#	Article	IF	Citations
37	Electron beam qualityk_{Q,Q₀}factors for various ionization chambers: a Monte Carlo investigation with penelope. Physics in Medicine and Biology, 2014, 59, 6673-6691.	3.0	8
38	Technical Note: Monte Carlo study of¹⁰⁶Ru/¹⁰⁶Rh ophthalmic plaques including the¹⁰⁶Rh gamma spectrum. Medical Physics, 2017, 44, 2581-2585.	3.0	7
39	Absorbed dose distributions from ophthalmic 106 Ru/106 Rh plaques measured in water with radiochromic film. Medical Physics, 2018, 45, 1699-1707.	3.0	7
40	Many-integrated core (MIC) technology for accelerating Monte Carlo simulation of radiation transport: A study based on the code DPM. Computer Physics Communications, 2018, 225, 28-35.	7.5	7
41	Momentum Distribution of Quantum Liquids at Finite Temperature. Journal of Low Temperature Physics, 2002, 126, 1547-1552.	1.4	5
42	Ant colony algorithm implementation in electron and photon Monte Carlo transport: Application to the commissioning of radiosurgery photon beams. Medical Physics, 2010, 37, 3782-3790.	3.0	5
43	BPA uptake does not correlate with LAT1 and Ki67 expressions in tumor samples (results of EORTC trial) Tj ETQq1 1 0.784314 rgBT /O	1.5	5
44	Monte Carlo study for designing a dedicated â€œDâ€•shaped collimator used in the external beam radiotherapy of retinoblastoma patients. Medical Physics, 2013, 41, 011714.	3.0	5
45	Experiments and Monte Carlo simulations on multiple Coulomb scattering of protons. Medical Physics, 2021, 48, 3186-3199.	3.0	5
46	Analytic approximations to Kelvin functions with applications to electromagnetics. Journal of Physics A, 2001, 34, 9153-9162.	1.6	4
47	Liquid-gas transition of neon in quasi-one-dimensional environments. Physical Review B, 2003, 68, .	3.2	4
48	Evaluation of the material assignment method used by a Monte Carlo treatment planning system. Cancer Radiotherapie: Journal De La Societe Francaise De Radiotherapie Oncologique, 2009, 13, 744-746.	1.4	4
49	Computation of the electron beam quality<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>k</mml:mi></mml:mrow><mml:mrow><mml:mtext>Q,</mml:mtext> for the NE2571, NE2571A and NE2581A thimble ionization chambers using PENELOPE. Physica Medica, 2017, 38, 76-80.	2.4	4
50	Monte Carlo simulation of conical collimators for stereotactic radiosurgery with a 6 MV flatteningâ€filterâ€free photon beam. Medical Physics, 2021, 48, 3160-3171.	3.0	4
51	Experimental Validation of an Analytical Program and a Monte Carlo Simulation for the Computation of the Far Out-of-Field Dose in External Beam Photon Therapy Applied to Pediatric Patients. Frontiers in Oncology, 0, 12, .	2.8	4
52	Triple- and quadruple-escape peaks in HPGe detectors: Experimental observation and Monte Carlo simulation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 615, 285-294.	1.6	3
53	Monte Carlo Simulation of the Treatment of Uveal Melanoma Using Measured Heterogeneous 106Ru Plaques. Ocular Oncology and Pathology, 2019, 5, 276-283.	1.0	3
54	Comment on â€˜The smallest clockâ€™. European Journal of Physics, 2013, 34, L65-L68.	0.6	2

#	Article	IF	Citations
55	Determination of the detection efficiency of a planar HPGe detector with a nonâ€uniform frontal dead layer. X-Ray Spectrometry, 2015, 44, 89-92.	1.4	2
56	Testing Monte Carlo absolute dosimetry formalisms for a small field â€˜Dâ€™-shaped collimator used in retinoblastoma external beam radiotherapy. Biomedical Physics and Engineering Express, 2016, 2, 065008.	1.2	2
57	Monte Carlo verification of the holder correction factors for the radiophotoluminescent glass dosimeter used by the IAEA in international dosimetry audits. Physica Medica, 2021, 86, 1-5.	0.7	2
58	Observation of double electron-positron pair production by<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î³</mml:mi></mml:mrow></mml:math>rays reexamined. Physical Review C, 2009, 79, .	2.9	1
59	Monte Carlo Computation of Dose-Volume Histograms in Structures at Risk of an Eye Irradiated with Heterogeneous Ruthenium-106 Plaques. Ocular Oncology and Pathology, 2020, 6, 353-359.	1.0	0
60	Simulation of Medical Linear Accelerators with PENELOPE. Biological and Medical Physics Series, 2012, , 313-325.	0.4	0