Lorenzo Brualla

List of Publications by Year
in descending order

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	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
2	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
3	Experiments and Monte Carlo simulations on multiple Coulomb scattering of protons. Medical Physics, 2021, 48, 3186-3199.	3.0	5
4	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
5	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
6	PENELOPE/PRIMO-calculated photon and electron spectra from clinical accelerators. Radiation Oncology, 2019, 14, 6.	2.7	26
7	Treatment verification using Varianâ€™s dynalog files in the Monte Carlo system PRIMO. Radiation Oncology, 2019, 14, 67.	2.7	13
8	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
9	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
10	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
11	DPM as a radiation transport engine for PRIMO. Radiation Oncology, 2018, 13, 256.	2.7	14
12	Technical Note: Monte Carlo study of¹⁰⁶Ru/¹⁰⁶Rh ophthalmic plaques including the¹⁰⁶Rh gamma spectrum. Medical Physics, 2017, 44, 2581-2585.	3.0	7
13	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:mt for the NE2571, NE2571A and NE2581A thimble ionization chambers using PENELOPE. Physica Medica, 2017, 38, 76-80.	0.7	4
14	Monte Carlo systems used for treatment planning and dose verification. Strahlentherapie Und Onkologie, 2017, 193, 243-259.	2.0	36
15	Monte Carlo Estimation of Absorbed Dose Distributions Obtained from Heterogeneous ¹⁰⁶Ru Eye Plaques. Ocular Oncology and Pathology, 2017, 3, 204-209.	1.0	12
16	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
17	Experimental HPGe coaxial detector response and efficiency compared to Monte Carlo simulations. Applied Radiation and Isotopes, 2016, 108, 64-74.	1.5	15
18	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

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19	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
20	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
21	A geometrical model for the Monte Carlo simulation of the TrueBeam linac. Physics in Medicine and Biology, 2015, 60, N219-N229.	3.0	33
22	Electron beam quality<i>k</i>_{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
23	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
24	The American Brachytherapy Society consensus guidelines for plaque brachytherapy of uveal melanoma and retinoblastoma. Brachytherapy, 2014, 13, 1-14.	0.5	272
25	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
26	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
27	PRIMO: A graphical environment for the Monte Carlo simulation of Varian and Elekta linacs. Strahlentherapie Und Onkologie, 2013, 189, 881-886.	2.0	72
28	Accurate estimation of dose distributions inside an eye irradiated with 106Ru plaques. Strahlentherapie Und Onkologie, 2013, 189, 68-73.	2.0	22
29	Comment on â€˜The smallest clockâ€™. European Journal of Physics, 2013, 34, L65-L68.	0.6	2
30	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
31	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
32	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
33	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
34	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
35	Simulation of Medical Linear Accelerators with PENELOPE. Biological and Medical Physics Series, 2012, , 313-325.	0.4	0
36	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

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37	BPA uptake does not correlate with LAT1 and Ki67 expressions in tumor samples (results of EORTC trial) Tj ETQq1 1 0.784314 rgBT /Ov	1.5	5
38	Monte Carlo Simulations Applied to Conjunctival Lymphoma Radiotherapy Treatment. Strahlentherapie Und Onkologie, 2011, 187, 492-498.	2.0	15
39	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
40	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
41	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
42	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
43	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
44	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
45	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
46	Fast Monte Carlo simulation on a voxelized human phantom deformed to a patient. Medical Physics, 2009, 36, 5162-5174.	3.0	10
47	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
48	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
49	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
50	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
51	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
52	Neon adsorbed in carbon nanotube bundles. Physical Review B, 2004, 70, .	3.2	13
53	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
54	Higher order and infinite Trotter-number extrapolations in path integral Monte Carlo. Journal of Chemical Physics, 2004, 121, 636-643.	3.0	47

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55	Spin-orbit induced backflow in neutron matter with auxiliary field diffusion Monte Carlo method. Physical Review C, 2003, 67, .	2.9	15
56	Liquid-gas transition of neon in quasi-one-dimensional environments. Physical Review B, 2003, 68, .	3.2	4
57	Momentum Distribution of Quantum Liquids at Finite Temperature. Journal of Low Temperature Physics, 2002, 126, 1547-1552.	1.4	5
58	Analytic approximations to Kelvin functions with applications to electromagnetics. Journal of Physics A, 2001, 34, 9153-9162.	1.6	4
59	Validation of a Monte Carlo Framework for Out-of-Field Dose Calculations in Proton Therapy. Frontiers in Oncology, 0, 12, .	2.8	14
60	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