

Giacomo Cuttone

List of Publications by Year in descending order

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91
papers

6,757
citations

201385

27
h-index

60497

81
g-index

93
all docs

93
docs citations

93
times ranked

10704
citing authors

#	ARTICLE	IF	CITATIONS
1	Geant4 developments and applications. IEEE Transactions on Nuclear Science, 2006, 53, 270-278.	1.2	4,869
2	A 62-MeV proton beam for the treatment of ocular melanoma at Laboratori Nazionali del Sud-INFN. IEEE Transactions on Nuclear Science, 2004, 51, 860-865.	1.2	123
3	Recent Improvements in Geant4 Electromagnetic Physics Models and Interfaces. Progress in Nuclear Science and Technology, 2011, 2, 898-903.	0.3	87
4	Cellular and molecular effects of protons: Apoptosis induction and potential implications for cancer therapy. Apoptosis: an International Journal on Programmed Cell Death, 2006, 11, 57-66.	2.2	73
5	An investigation of the operating characteristics of two PTW diamond detectors in photon and electron beams. Medical Physics, 2002, 29, 248-254.	1.6	70
6	Implementation of a new Monte Carlo-GEANT4 Simulation tool for the development of a proton therapy beam line and verification of the related dose distributions. IEEE Transactions on Nuclear Science, 2005, 52, 262-265.	1.2	66
7	Hadrontherapy: a Geant4-Based Tool for Proton/Ion-Therapy Studies. Progress in Nuclear Science and Technology, 2011, 2, 207-212.	0.3	65
8	Effectiveness of Monoenergetic and Spread-Out Bragg Peak Carbon-Ions for Inactivation of Various Normal and Tumour Human Cell Lines. Journal of Radiation Research, 2008, 49, 597-607.	0.8	55
9	SiCilia – Silicon Carbide Detectors for Intense Luminosity Investigations and Applications. Sensors, 2018, 18, 2289.	2.1	51
10	ELIMAIA: A Laser-Driven Ion Accelerator for Multidisciplinary Applications. Quantum Beam Science, 2018, 2, 8.	0.6	49
11	The Role of Hypoxia and SRC Tyrosine Kinase in Glioblastoma Invasiveness and Radioresistance. Cancers, 2020, 12, 2860.	1.7	46
12	A PET Prototype for ^{18}F -Beam Monitoring of Proton Therapy. IEEE Transactions on Nuclear Science, 2009, 56, 51-56.	1.2	39
13	Response of a radioresistant human melanoma cell line along the proton spread-out Bragg peak. International Journal of Radiation Biology, 2010, 86, 742-751.	1.0	39
14	Proton range monitoring with in-beam PET: Monte Carlo activity predictions and comparison with cyclotron data. Physica Medica, 2014, 30, 559-569.	0.4	39
15	Induction and Repair of DNA Double-Strand Breaks in Human Cells: Dephosphorylation of Histone H2AX and its Inhibition by Calyculin A. Radiation Research, 2005, 164, 514-517.	0.7	38
16	Radiobiological analysis of human melanoma cells on the 62 MeV CATANA proton beam. International Journal of Radiation Biology, 2006, 82, 251-265.	1.0	38
17	Microdosimetric investigation at the therapeutic proton beam facility of CATANA. Radiation Protection Dosimetry, 2004, 110, 681-686.	0.4	37
18	The Hallmarks of Glioblastoma: Heterogeneity, Intercellular Crosstalk and Molecular Signature of Invasiveness and Progression. Biomedicines, 2022, 10, 806.	1.4	35

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19	Non-destructive determination of the silver content in Roman coins (nummi), dated to 308â€“311 A.D., by the combined use of PIXE-alpha, XRF and DPAA techniques. <i>Microchemical Journal</i> , 2011, 97, 286-290.	2.3	32
20	ELIMED, future hadrontherapy applications of laser-accelerated beams. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2013, 730, 174-177.	0.7	32
21	Study of a silicon telescope for solid state microdosimetry: Preliminary measurements at the therapeutic proton beam line of CATANA. <i>Radiation Measurements</i> , 2010, 45, 1284-1289.	0.7	30
22	Overview of the future upgrade of the INFN-LNS superconducting cyclotron. <i>Modern Physics Letters A</i> , 2017, 32, 1740009.	0.5	30
23	Prototype Tracking Studies for Proton CT. <i>IEEE Transactions on Nuclear Science</i> , 2007, 54, 140-145.	1.2	29
24	The PRIMA collaboration: Preliminary results in FBP reconstruction of pCT data. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2013, 730, 184-190.	0.7	29
25	Continuous monitoring of noise levels in the Gulf of Catania (Ionian Sea). Study of correlation with ship traffic. <i>Marine Pollution Bulletin</i> , 2017, 121, 97-103.	2.3	29
26	Proton Therapy and Src Family Kinase Inhibitor Combined Treatments on U87 Human Glioblastoma Multiforme Cell Line. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4745.	1.8	29
27	The Proton-Boron Reaction Increases the Radiobiological Effectiveness of Clinical Low- and High-Energy Proton Beams: Novel Experimental Evidence and Perspectives. <i>Frontiers in Oncology</i> , 2021, 11, 682647.	1.3	28
28	Characterization of a Silicon Strip Detector and a YAG:Ce Calorimeter for a Proton Computed Radiography Apparatus. <i>IEEE Transactions on Nuclear Science</i> , 2010, 57, 8-16.	1.2	27
29	An in-beam PET system for monitoring ion-beam therapy: test on phantoms using clinical 62 MeV protons. <i>Journal of Instrumentation</i> , 2014, 9, C04005-C04005.	0.5	27
30	Precise measurement of prompt photon emission from 80 MeV/u carbon ion beam irradiation. <i>Journal of Instrumentation</i> , 2012, 7, P03001-P03001.	0.5	26
31	Detailed Analysis of Apoptosis and Delayed Luminescence of Human Leukemia Jurkat T Cells after Proton Irradiation and Treatments with Oxidant Agents and Flavonoids. <i>Oxidative Medicine and Cellular Longevity</i> , 2012, 2012, 1-14.	1.9	24
32	Molecular Investigation on a Triple Negative Breast Cancer Xenograft Model Exposed to Proton Beams. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6337.	1.8	24
33	Response of a Human Melanoma Cell Line to Low and High Ionizing Radiation. <i>Annals of the New York Academy of Sciences</i> , 2007, 1095, 165-174.	1.8	22
34	Clinical and Research Activities at the CATANA Facility of INFN-LNS: From the Conventional Hadrontherapy to the Laser-Driven Approach. <i>Frontiers in Oncology</i> , 2017, 7, 223.	1.3	22
35	Measurement of the atmospheric muon depth intensity relation with the NEMO Phase-2 tower. <i>Astroparticle Physics</i> , 2015, 66, 1-7.	1.9	21
36	Design of the ELIMAIA ion collection system. <i>Journal of Instrumentation</i> , 2015, 10, T12001-T12001.	0.5	20

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37	Monte Carlo Studies of a Proton Computed Tomography System. IEEE Transactions on Nuclear Science, 2007, 54, 1487-1491.	1.2	19
38	A proton Computed Tomography based medical imaging system. Journal of Instrumentation, 2014, 9, C12009-C12009.	0.5	19
39	Design and Status of the ELIMED Beam Line for Laser-Driven Ion Beams. Applied Sciences (Switzerland), 2015, 5, 427-445.	1.3	17
40	Time of Flight based diagnostics for high energy laser driven ion beams. Journal of Instrumentation, 2017, 12, C03086-C03086.	0.5	17
41	Testing Surgical Face Masks in an Emergency Context: The Experience of Italian Laboratories during the COVID-19 Pandemic Crisis. International Journal of Environmental Research and Public Health, 2021, 18, 1462.	1.2	17
42	Acrometastases to the Hand: A Systematic Review. Medicina (Lithuania), 2021, 57, 950.	0.8	15
43	Performance of upstream interaction region detectors for the FIRST experiment at GSI. Journal of Instrumentation, 2012, 7, P02006-P02006.	0.5	14
44	Comparison of human lung cancer cell radiosensitivity after irradiations with therapeutic protons and carbon ions. Experimental Biology and Medicine, 2017, 242, 1015-1024.	1.1	14
45	Gene expression profiling of breast cancer cell lines treated with proton and electron radiations. British Journal of Radiology, 2018, 91, 20170934.	1.0	14
46	Proton-irradiated breast cells: molecular points of view. Journal of Radiation Research, 2019, 60, 451-465.	0.8	14
47	gSeaGen: The KM3NeT GENIE-based code for neutrino telescopes. Computer Physics Communications, 2020, 256, 107477.	3.0	14
48	A novel superconducting cyclotron for therapy and radioisotope production. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 562, 1009-1012.	0.7	13
49	Characterization of an In-Beam PET Prototype for Proton Therapy With Different Target Compositions. IEEE Transactions on Nuclear Science, 2010, 57, 1563-1569.	1.2	13
50	A proton Computed Tomography system for medical applications. Journal of Instrumentation, 2013, 8, C02021-C02021.	0.5	13
51	ELIMED: a new hadron therapy concept based on laser driven ion beams. Proceedings of SPIE, 2013, , .	0.8	13
52	ELIMED-ELIMAIA: The First Open User Irradiation Beamline for Laser-Plasma-Accelerated Ion Beams. Frontiers in Physics, 2020, 8, .	1.0	13
53	Optical characterization of a radiochromic film by total reflectance and transmittance measurements. Medical Physics, 2004, 31, 2147-2154.	1.6	12
54	Diagnostics and Dosimetry Solutions for Multidisciplinary Applications at the ELIMAIA Beamline. Applied Sciences (Switzerland), 2018, 8, 1415.	1.3	12

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55	The Role of [68Ga]Ga-DOTA-SSTR PET Radiotracers in Brain Tumors: A Systematic Review of the Literature and Ongoing Clinical Trials. <i>Cancers</i> , 2022, 14, 2925.	1.7	12
56	Assessment of the inhibitory effects of different radiation qualities or chemotherapeutic agents on a human melanoma cell line. <i>Physica Medica</i> , 2008, 24, 187-195.	0.4	10
57	Radiosensitivity of human ovarian carcinoma and melanoma cells to $\hat{\text{I}}^3$ -rays and protons. <i>Archives of Medical Science</i> , 2014, 3, 578-586.	0.4	10
58	Measuring breathability and bacterial filtration efficiency of face masks in the pandemic context: A round robin study with proficiency testing among non-accredited laboratories. <i>Measurement: Journal of the International Measurement Confederation</i> , 2022, 189, 110481.	2.5	10
59	Preliminary investigation on the use of the MOSFET dosimeter in proton beams. <i>Physica Medica</i> , 2006, 22, 29-32.	0.4	9
60	Radiotherapy of Conjunctival Melanoma: Role and Challenges of Brachytherapy, Photon-Beam and Protontherapy. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 9071.	1.3	9
61	DNA double-strand breaks in cancer cells as a function of proton linear energy transfer and its variation in time. <i>International Journal of Radiation Biology</i> , 2021, 97, 1-12.	1.0	9
62	Biomedical Research Programs at Present and Future High-Energy Particle Accelerators. <i>Frontiers in Physics</i> , 2020, 8, 00380.	1.0	8
63	Viability of a Human Melanoma Cell after Single and Combined Treatment with Fotemustine, Dacarbazine, and Proton Irradiation. <i>Annals of the New York Academy of Sciences</i> , 2007, 1095, 154-164.	1.8	7
64	Tomographic images by proton Computed Tomography system for proton therapy applications. , 2011, , .		7
65	Effects of Ion Irradiation on Seedlings Growth Monitored by Ultraweak Delayed Luminescence. <i>PLoS ONE</i> , 2016, 11, e0167998.	1.1	7
66	A PET prototype for in-beam monitoring of proton therapy. , 2007, , .		6
67	Evaluation of proton beam radiation-induced skin injury in a murine model using a clinical SOBP. <i>PLoS ONE</i> , 2020, 15, e0233258.	1.1	6
68	Hadrontherapy: An open source, Geant4-based application for proton-ion therapy studies. , 2009, , .		5
69	Anti-Tumour Activity of Fotemustine and Protons in Combination with Bevacizumab. <i>Chemotherapy</i> , 2010, 56, 214-222.	0.8	5
70	A radiobiological study of carbon ions of different linear energy transfer in resistant human malignant cell lines. <i>International Journal of Radiation Biology</i> , 2020, 96, 1400-1412.	1.0	5
71	Effects of fotemustine or dacarbazine on a melanoma cell line pretreated with therapeutic proton irradiation. <i>Journal of Experimental and Clinical Cancer Research</i> , 2009, 28, 50.	3.5	4
72	ELIMED a new concept of hadrontherapy with laser-driven beams. , 2012, , .		4

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73	ELIMED: MEDICAL APPLICATION AT ELI-BEAMLINES. STATUS OF THE COLLABORATION AND FIRST RESULTS. Acta Polytechnica, 2014, 54, 285-289.	0.3	4
74	Inactivation of HTB63 human melanoma cells by irradiation with protons and gamma rays. Oncology Reports, 2004, 12, 1323-8.	1.2	4
75	A transputer based high-level digital trigger system for nuclear physics experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1992, 314, 178-184.	0.7	3
76	On the Possibility to Use the Charge Imbalance in Patients Undergoing Radiotherapy: A New Online, In Vivo, Noninvasive Dose Monitoring System. Applied Sciences (Switzerland), 2021, 11, 7005.	1.3	3
77	Proton beam radiotherapy of locally advanced or recurrent conjunctival squamous cell carcinoma: experience of the CATANA Centre. Journal of Radiotherapy in Practice, 0, , 1-8.	0.2	3
78	Monte Carlo simulation to evaluate the contamination in an energy modulated carbon ion beam for hadron therapy delivered by cyclotron. Physics in Medicine and Biology, 2008, 53, 6045-6053.	1.6	2
79	Development of a proton computed radiography apparatus. , 2008, , .		2
80	Proof-of-Principle results of proton computed tomography. , 2016, , .		2
81	DNA damage assessment of human breast and lung carcinoma cells irradiated with protons and carbon ions. Journal of Radiation Research and Applied Sciences, 2020, 13, 672-687.	0.7	2
82	Radiobiological Outcomes, Microdosimetric Evaluations and Monte Carlo Predictions in Eye Proton Therapy. Applied Sciences (Switzerland), 2021, 11, 8822.	1.3	2
83	Proton inactivation of melanoma cells enhanced by fotemustine. Radiation Protection Dosimetry, 2011, 143, 503-507.	0.4	1
84	Comparative timing performances of S-CVD diamond detectors with different particle beams and readout electronics. , 2012, , .		1
85	Dosimetry Techniques for Ion Beams. Biological and Medical Physics Series, 2012, , 441-455.	0.3	1
86	Carbon ions induce DNA double strand breaks and apoptosis in HTB140 melanoma cells. Nuclear Technology and Radiation Protection, 2013, 28, 195-203.	0.3	1
87	Radiosensitization of non-small cell lung carcinoma by EGFR inhibition. Nuclear Technology and Radiation Protection, 2014, 29, 233-241.	0.3	1
88	Variation of Apoptotic Pathway Regulators by Fotemustine and Protons in a Human Melanoma Cell Line. Advanced Science Letters, 2012, 5, 552-559.	0.2	1
89	A digital trigger for heavy-ion experiments at LNS. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 362, 472-477.	0.7	0
90	Characterization of an in-beam PET prototype for proton therapy with different target composition. , 2008, , .		0

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91	Assembling and test of a proton computed radiography apparatus. , 2009, , .		0