

Paola Sala

List of Publications by Year in descending order

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127
papers

4,778
citations

139253

30
h-index

84567

67
g-index

127
all docs

127
docs citations

127
times ranked

8985
citing authors

#	ARTICLE	IF	CITATIONS
1	A method to predict space radiation biological effectiveness for non-cancer effects following intense Solar Particle Events. <i>Life Sciences in Space Research</i> , 2024, 41, 210-217.	2.8	4
2	A Mission to Mars: Prediction of GCR Doses and Comparison with Astronaut Dose Limits. <i>International Journal of Molecular Sciences</i> , 2023, 24, 2328.	4.5	10
3	Roadmap: helium ion therapy. <i>Physics in Medicine and Biology</i> , 2022, 67, 15TR02.	3.5	49
4	Extension of the BIANCA biophysical model up to Fe-ions and applications for space radiation research. <i>EPJ Web of Conferences</i> , 2022, 261, 03001.	0.3	3
5	Radiobiological damage by space radiation: extension of the BIANCA model to heavy ions up to iron, and pilot application to cosmic ray exposure. <i>Journal of Radiological Protection</i> , 2022, 42, 021523.	1.6	6
6	First application of the BIANCA biophysical model to carbon-ion patient cases. <i>Physics in Medicine and Biology</i> , 2022, 67, 115013.	3.5	5
7	FLUKA cross sections for cosmic-ray interactions with the DRAGON2 code. <i>Journal of Cosmology and Astroparticle Physics</i> , 2022, 2022, 008.	5.1	16
8	Enhancement of the sonoacoustic effect through ultrasound and photoacoustic contrast agents. <i>Scientific Reports</i> , 2021, 11, .	3.7	12
9	Biological effectiveness of He-3 and He-4 ion beams for cancer hadrontherapy: a study based on the BIANCA biophysical model. <i>Physics in Medicine and Biology</i> , 2021, 66, 195009.	3.5	11
10	Healthy Tissue Damage Following Cancer Ion Therapy: A Radiobiological Database Predicting Lymphocyte Chromosome Aberrations Based on the BIANCA Biophysical Model. <i>International Journal of Molecular Sciences</i> , 2021, 22, 10877.	4.5	8
11	Monitoring Proton Therapy Through in-Beam PET: An Experimental Phantom Study. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , 2020, 4, 194-201.	3.9	12
12	Measuring Changes in the Atmospheric Neutrino Rate over Gigayear Timescales. <i>Physical Review Letters</i> , 2020, 125, .	7.8	11
13	Study of space charge in the ICARUS T600 detector. <i>Journal of Instrumentation</i> , 2020, 15, P07001-P07001.	1.2	7
14	Design and implementation of the new scintillation light detection system of ICARUS T600. <i>Journal of Instrumentation</i> , 2020, 15, T10007-T10007.	1.2	20
15	A measurement of the group velocity of scintillation light in liquid argon. <i>Journal of Instrumentation</i> , 2020, 15, P09009-P09009.	1.2	20
16	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.	4.5	15
17	Cosmic-ray interactions with the Sun using the fluka code. <i>Physical Review D</i> , 2020, 101, .	4.4	20
18	Analysis of in-beam PET time-profiles in proton therapy. <i>Journal of Instrumentation</i> , 2019, 14, C02001-C02001.	1.2	5

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37	Production of secondary particles and nuclei in cosmic rays collisions with the interstellar gas using the FLUKA code. <i>Astroparticle Physics</i> , 2016, 81, 21-38.	2.4	29
38	A novel algorithm for the calculation of physical and biological irradiation quantities in scanned ion beam therapy: the beamlet superposition approach. <i>Physics in Medicine and Biology</i> , 2016, 61, 183-214.	3.5	26
39	Operation and performance of the ICARUS T600 cryogenic plant at Gran Sasso underground Laboratory. <i>Journal of Instrumentation</i> , 2015, 10, P12004-P12004.	1.2	16
40	Overview of the FLUKA code. <i>Annals of Nuclear Energy</i> , 2015, 82, 10-18.	2.1	667
41	Noise evaluation of Compton camera imaging for proton therapy. <i>Physics in Medicine and Biology</i> , 2015, 60, 1845-1863.	3.5	49
42	First tests for an online treatment monitoring system with in-beam PET for proton therapy. <i>Journal of Instrumentation</i> , 2015, 10, C01010-C01010.	1.2	6
43	A Study of Monitoring Performances with the INSIDE System. <i>Acta Physica Polonica A</i> , 2015, 127, 1468-1470.	0.4	11
44	The INSIDE Project: Innovative Solutions for In-Beam Dosimetry in Hadrontherapy. <i>Acta Physica Polonica A</i> , 2015, 127, 1465-1467.	0.4	26
45	Online monitoring for proton therapy: A real-time procedure using a planar PET system. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2015, 786, 120-126.	1.3	24
46	Cascade particles, nuclear evaporation, and residual nuclei in high energy hadron-nucleus interactions. <i>Zeitschrift für Physik C-Particles and Fields</i> , 2014, 70, 413-426.	0.7	21
47	Monte Carlo Latching Studies of Prompt-Gamma Detection During Hadrontherapy. <i>IEEE Transactions on Nuclear Science</i> , 2014, 61, 2540-2546.	1.9	3
48	Hadronic and electromagnetic fragmentation of ultrarelativistic heavy ions at LHC. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2014, 17, .	1.9	19
49	Proton range monitoring with in-beam PET: Monte Carlo activity predictions and comparison with cyclotron data. <i>Physica Medica</i> , 2014, 30, 559-569.	0.8	39
50	Extended calibration range for prompt photon emission in ion beam irradiation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 745, 114-118.	1.3	7
51	The FLUKA Code: Developments and Challenges for High Energy and Medical Applications. <i>Nuclear Data Sheets</i> , 2014, 120, 211-214.	1.9	1,404
52	Performance of the reconstruction algorithms of the FIRST experiment pixel sensors vertex detector. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 767, 34-40.	1.3	13
53	FLUKA and PENELOPE simulations of 10keV to 10MeV photons in LYSO and soft tissue. <i>Radiation Physics and Chemistry</i> , 2014, 95, 170-173.	3.0	2
54	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.	1.2	29

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55	The trigger system of the ICARUS experiment for the CNGS beam. <i>Journal of Instrumentation</i> , 2014, 9, P08003-P08003.	1.2	15
56	Experimental observation of an extremely high electron lifetime with the ICARUS-T600 LAr-TPC. <i>Journal of Instrumentation</i> , 2014, 9, P12006-P12006.	1.2	36
57	Monte Carlo calculations for the ATLAS cavern background. <i>Progress in Nuclear Science and Technology</i> , 2014, 4, 507-510.	0.3	0
58	A new PET prototype for proton therapy: comparison of data and Monte Carlo simulations. <i>Journal of Instrumentation</i> , 2013, 8, C03021-C03021.	1.2	14
59	Distributions of secondary particles in proton and carbon-ion therapy: a comparison between GATE/Geant4 and FLUKA Monte Carlo codes. <i>Physics in Medicine and Biology</i> , 2013, 58, 2879-2899.	3.5	109
60	Hadron production simulation by FLUKA. <i>Journal of Physics: Conference Series</i> , 2013, 408, 012051.	0.4	9
61	Verification of the CNGS timing system using fast diamond detectors. <i>Journal of Instrumentation</i> , 2013, 8, P01017-P01017.	1.2	3
62	FIRST experiment: Fragmentation of Ions Relevant for Space and Therapy. <i>Journal of Physics: Conference Series</i> , 2013, 420, 012061.	0.4	9
63	Describing Compton scattering and two-quanta positron annihilation based on Compton profiles: two models suited for the Monte Carlo method. <i>Journal of Instrumentation</i> , 2012, 7, P07018-P07018.	1.2	9
64	Performance of upstream interaction region detectors for the FIRST experiment at GSI. <i>Journal of Instrumentation</i> , 2012, 7, P02006-P02006.	1.2	14
65	The FIRST experiment at GSI. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012, 678, 130-138.	1.3	31
66	A search for the analogue to Cherenkov radiation by high energy neutrinos at superluminal speeds in ICARUS. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 711, 270-275.	4.0	21
67	Measurement of the neutrino velocity with the ICARUS detector at the CNGS beam. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 713, 17-22.	4.0	52
68	Underground operation of the ICARUS T600 LAr-TPC: first results. <i>Journal of Instrumentation</i> , 2011, 6, P07011-P07011.	1.2	104
69	Status of the ICARUS experiment. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2011, 217, 186-188.	0.6	1
70	An integral test of FLUKA nuclear models with 160 MeV proton beams in multi-layer Faraday cups. <i>Physics in Medicine and Biology</i> , 2011, 56, 4001-4011.	3.5	13
71	Principles of Monte Carlo Calculations and Codes. , 2011, , 35-57.		0
72	THE CNGS FACILITY: PERFORMANCE AND OPERATIONAL EXPERIENCE. , 2010, , 220-225.		4

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73	PERFORMANCE AND OPERATIONAL EXPERIENCE OF THE CNGS FACILITY. , 2010, , 132-136.		4
74	Towards a new Liquid Argon Imaging Chamber for the MODULAR project. Journal of Instrumentation, 2009, 4, P02003-P02003.	1.2	12
75	Radiation transport calculations and simulations. Radiation Protection Dosimetry, 2009, 137, 118-133.	0.7	8
76	CNGS neutrino beam: the MODULAR project. Nuclear Physics, Section B, Proceedings Supplements, 2009, 188, 355-358.	0.6	1
77	CNGS neutrino beam for long base-line experiments: present status and perspectives. Nuclear Physics, Section B, Proceedings Supplements, 2009, 189, 263-270.	0.6	5
78	Measurement of the detection efficiency of the KLOE calorimeter for neutrons between 22 and 174MeV. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 598, 244-247.	1.3	2
79	The CNGS neutrino beam: status. Nuclear Physics, Section B, Proceedings Supplements, 2009, 188, 188-190.	0.6	2
80	Measurement and simulation of the neutron detection efficiency with a Pb-scintillating fiber calorimeter. Journal of Physics: Conference Series, 2009, 160, 012023.	0.4	2
81	Hadronic models for cosmic ray physics: the FLUKA code. Nuclear Physics, Section B, Proceedings Supplements, 2008, 175-176, 88-95.	0.6	9
82	A new, very massive modular Liquid Argon Imaging Chamber to detect low energy off-axis neutrinos from the CNGS beam (Project MODULAR). Astroparticle Physics, 2008, 29, 174-187.	2.4	31
83	The physics of the FLUKA code: Recent developments. Advances in Space Research, 2007, 40, 1339-1349.	2.8	68
84	CNGS neutrino beam: from CERN to Gran Sasso. Nuclear Physics, Section B, Proceedings Supplements, 2007, 168, 169-172.	0.6	5
85	A Monte Carlo approach to study neutron and fragment emission in heavy-ion reactions. Advances in Space Research, 2007, 40, 1350-1356.	2.8	2
86	Atmospheric muon simulation using the FLUKA MC Model. Nuclear Physics, Section B, Proceedings Supplements, 2007, 168, 286-288.	0.6	15
87	Measurement and simulation of the neutron response and detection efficiency of a Pb-scintillating fiber calorimeter. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 581, 368-372.	1.3	16
88	Modelling human exposure to space radiation with different shielding: the FLUKA code coupled with anthropomorphic phantoms. Journal of Physics: Conference Series, 2006, 41, 135-142.	0.4	9
89	Heavy-ion collisions: preliminary results of a new QMD model coupled with FLUKA. Journal of Physics: Conference Series, 2006, 41, 519-522.	0.4	5
90	GCR and SPE organ doses in deep space with different shielding: Monte Carlo simulations based on the FLUKA code coupled to anthropomorphic phantoms. Advances in Space Research, 2006, 37, 1791-1797.	2.8	27

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91	Carbon induced reactions at low incident energies. Journal of Physics: Conference Series, 2006, 41, 212-218.	0.4	4
92	Human exposure to space radiation: role of primary and secondary particles. Radiation Protection Dosimetry, 2006, 122, 362-366.	0.7	17
93	The FLUKA code: an overview. Journal of Physics: Conference Series, 2006, 41, 151-160.	0.4	30
94	CNGS neutrino beam systematics for. Nuclear Physics, Section B, Proceedings Supplements, 2005, 145, 93-97.	0.6	9
95	Event Generator Comparisons. Nuclear Physics, Section B, Proceedings Supplements, 2005, 139, 278-285.	0.6	3
96	The atmospheric neutrino fluxes below 100 MeV: the FLUKA results. Nuclear Physics, Section B, Proceedings Supplements, 2005, 145, 128-131.	0.6	4
97	The FLUKA code: New developments and application to 1GeV/n iron beams. Advances in Space Research, 2005, 35, 214-222.	2.8	36
98	The atmospheric neutrino flux below 100MeV: The FLUKA results. Astroparticle Physics, 2005, 23, 526-534.	2.4	85
99	The application of FLUKA to dosimetry and radiation therapy. Radiation Protection Dosimetry, 2005, 116, 113-117.	0.7	17
100	Heavy ion interactions from Coulomb barrier to few GeV/n: Boltzmann Master Equation theory and FLUKA code performances. Brazilian Journal of Physics, 2004, 34, 897-900.	1.5	5
101	The fluka code for space applications: recent developments. Advances in Space Research, 2004, 34, 1302-1310.	2.8	87
102	Role of shielding in modulating the effects of solar particle events: Monte Carlo calculation of absorbed dose and DNA complex lesions in different organs. Advances in Space Research, 2004, 34, 1338-1346.	2.8	21
103	The FLUKA atmospheric neutrino flux calculation. Astroparticle Physics, 2003, 19, 269-290.	2.4	100
104	Erratum to "The FLUKA atmospheric neutrino flux calculation" [Astropart. Phys. 19 (2003) 269-290]. Astroparticle Physics, 2003, 19, 291-294.	2.4	30
105	CALCULATION OF SECONDARY PARTICLES IN ATMOSPHERE AND HADRONIC INTERACTIONS. International Journal of Modern Physics A, 2002, 17, 1743-1754.	1.7	1
106	A low energy optimization of the CERN-NGS neutrino beam for a $\hat{1},13$ driven neutrino oscillation search. Journal of High Energy Physics, 2002, 2002, 004-004.	4.7	14
107	Nuclear Reactions in Monte Carlo Codes. Radiation Protection Dosimetry, 2002, 99, 29-38.	0.7	11
108	Comparison of the FLUKA calculations with CAPRICE94 data on muons in atmosphere. Astroparticle Physics, 2002, 17, 477-488.	2.4	19

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109	Progresses in the validation of the FLUKA atmospheric $\hat{1}/2$ flux calculation. Nuclear Physics, Section B, Proceedings Supplements, 2002, 110, 336-338.	0.6	2
110	FLUKA simulations for low-energy neutron interactions and experimental validation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 469, 347-353.	1.3	14
111	A 3-dimensional calculation of the atmospheric neutrino fluxes. Astroparticle Physics, 2000, 12, 315-333.	2.4	104
112	Hadronic models and experimental data for the neutrino beam production. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 449, 609-623.	1.3	31
113	A new calculation of atmospheric neutrino flux: the FLUKA approach. Nuclear Physics, Section B, Proceedings Supplements, 1999, 70, 358-360.	0.6	7
114	Attenuation curves in concrete for neutrons produced by 710 MeV $\hat{1}\pm$ -particles on steel and water and by $337\hat{a}\hat{e}\hat{c}390$ MeV/u Ne ions on Al, Cu and Pb. Nuclear Instruments & Methods in Physics Research B, 1999, 155, 102-109.	1.2	4
115	Monolithic GaAs current-sensitive cryogenic preamplifier for calorimetry applications. Nuclear Physics, Section B, Proceedings Supplements, 1998, 61, 511-519.	0.6	2
116	Test beam results of a stereo preshower integrated in the liquid argon accordion calorimeter. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 411, 313-329.	1.3	1
117	The production of residual nuclei in peripheral hadron $\hat{a}\hat{e}\hat{r}$ nucleus and nucleus $\hat{a}\hat{e}\hat{r}$ nucleus collisions. Nuclear Physics, Section B, Proceedings Supplements, 1997, 52, 120-122.	0.6	2
118	The liquid argon TPC for the ICARUS experiment. Nuclear Physics, Section B, Proceedings Supplements, 1997, 54, 95-104.	0.6	9
119	Construction and test of a fine-grained liquid argon preshower prototype. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 385, 47-57.	1.3	5
120	Neutron irradiation of cold GaAs devices and circuits made with an ion-implanted monolithic process. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 388, 399-407.	1.3	3
121	Double differential distributions and attenuation in concrete for neutrons produced by $100\hat{a}\hat{e}\hat{c}400$ MeV protons on iron and tissue targets. Nuclear Instruments & Methods in Physics Research B, 1996, 114, 70-80.	1.2	21
122	The production of residual nuclei in peripheral high energy nucleus-nucleus interactions. Zeitschrift F $\hat{A}\hat{1}/4r$ Physik C-Particles and Fields, 1996, 71, 75-86.	0.7	38
123	Performance of a liquid argon accordion hadronic calorimeter prototype. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 355, 295-307.	1.3	5
124	Performance of a large scale prototype of the ATLAS accordion electromagnetic calorimeter. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 364, 290-306.	1.3	26
125	Performance of the liquid argon electromagnetic and hadronic accordion calorimeter for the LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1994, 344, 39-46.	1.3	2
126	A comparison of FLUKA simulations with measurements of fluence and dose in calorimeter structures. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1993, 332, 459-468.	1.3	57

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127	Bremsstrahlung source terms for intermediate energy electron accelerators. Nuclear Instruments & Methods in Physics Research B, 1993, 82, 32-38.	1.2	8