

# Saverio Altieri

## List of Publications by Year in descending order

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133  
papers

2,925  
citations

172207

29  
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223531

46  
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133  
all docs

133  
docs citations

133  
times ranked

2255  
citing authors



#	ARTICLE	IF	CITATIONS
19	The simulation of resistive plate chambers in avalanche mode: charge spectra and efficiency. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 431, 413-427.	0.7	45
20	Synthesis of a carborane-containing cholesterol derivative and evaluation as a potential dual agent for MRI/BNCT applications. Organic and Biomolecular Chemistry, 2014, 12, 2457-2467.	1.5	41
21	New developments on front-end electronics for the CMS Resistive Plate Chambers. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 456, 143-149.	0.7	40
22	Theranostic Nanoparticles Loaded with Imaging Probes and Rubrocurcumin for Combined Cancer Therapy by Folate Receptor Targeting. ChemMedChem, 2017, 12, 502-509.	1.6	40
23	Measurement of Helicity-Dependent Photoabsorption Cross Sections on the Neutron from 815 to 1825 ÅMeV. Physical Review Letters, 2005, 94, 162001.	2.9	39
24	Carboranyl-porphyrines and derivatives for boron neutron capture therapy: From synthesis to in vitro tests. Coordination Chemistry Reviews, 2013, 257, 2213-2231.	9.5	37
25	Design, development and characterization of multi-functionalized gold nanoparticles for biodetection and targeted boron delivery in BNCT applications. Applied Radiation and Isotopes, 2011, 69, 1692-1697.	0.7	36
26	The BIANCA model/code of radiation-induced cell death: application to human cells exposed to different radiation types. Radiation and Environmental Biophysics, 2014, 53, 525-533.	0.6	35
27	Insights into the use of gadolinium and gadolinium/boron-based agents in imaging-guided neutron capture therapy applications. Future Medicinal Chemistry, 2016, 8, 899-917.	1.1	35
28	Modeling radiation-induced cell death: role of different levels of DNA damage clustering. Radiation and Environmental Biophysics, 2015, 54, 305-316.	0.6	34
29	Measurement of the Gerasimov-Drell-Hearn Integrand for $H^2$ from 200 to 800 ÅMeV. Physical Review Letters, 2006, 97, 202303.	2.9	30
30	Rational design of gold nanoparticles functionalized with carboranes for application in Boron Neutron Capture Therapy. International Journal of Pharmaceutics, 2013, 458, 340-346.	2.6	30
31	Measurement of the helicity dependence for the $\hat{1}^3p \hat{1}^+ n \hat{1}^+ \epsilon$ channel in the second resonance region. Physical Review C, 2006, 74, .	1.1	29
32	Water-soluble carboranyl-phthalocyanines for BNCT. Synthesis, characterization, and in vitro tests of the Zn( $\langle scp \rangle$ )-nido-carboranyl-hexylthiophthalocyanine. Dalton Transactions, 2015, 44, 11021-11028.	1.6	28
33	Progresses in the simulation of resistive plate chambers in avalanche mode. Nuclear Physics, Section B, Proceedings Supplements, 1999, 78, 459-464.	0.5	27
34	First measurement of the helicity dependence for the $\hat{1}^3p \hat{1}^+ p \hat{1}^+ \epsilon$ reaction. European Physical Journal A, 2007, 34, 11.	1.0	27
35	An innovative therapeutic approach for malignant mesothelioma treatment based on the use of Gd/boron multimodal probes for MRI guided BNCT. Journal of Controlled Release, 2018, 280, 31-38.	4.8	27
36	Positron emission tomography and [18F]BPA: A perspective application to assess tumour extraction of boron in BNCT. Applied Radiation and Isotopes, 2009, 67, S351-S354.	0.7	26

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37	Biodistribution of the boron carriers boronophenylalanine (BPA) and/or decahydrodecaborate (GB-10) for Boron Neutron Capture Therapy (BNCT) in an experimental model of lung metastases. <i>Applied Radiation and Isotopes</i> , 2014, 88, 94-98.	0.7	26
38	Detectors and Cultural Heritage: The INFN-CHNet Experience. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3462.	1.3	26
39	Recent advances in the development of high-resolution 3D cadmium-zinc-telluride drift strip detectors. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 1564-1576.	1.0	26
40	An improved neutron autoradiography set-up for $^{10}\text{B}$ concentration measurements in biological samples. <i>Reports of Practical Oncology and Radiotherapy</i> , 2016, 21, 123-128.	0.3	24
41	First measurement of the helicity-dependent $\hat{p} \cdot \hat{\rho}$ differential cross-section. <i>European Physical Journal A</i> , 2003, 17, 241-244.	1.0	23
42	Helicity dependence of the total inclusive cross section on the deuteron. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2009, 672, 328-332.	1.5	23
43	<i>In Vivo</i> Evaluation of Multifunctional Gold Nanorods for Boron Neutron Capture and Photothermal Therapies. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 49589-49601.	4.0	23
44	Aging study for resistive plate chambers of the CMS muon trigger detector. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 515, 342-347.	0.7	21
45	Resistive plate chamber neutron and gamma sensitivity measurement with a $^{252}\text{Cf}$ source. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 506, 101-109.	0.7	21
46	How to Study Boron Biodistribution in Liver Metastases from Colorectal Cancer. <i>Journal of Chemotherapy</i> , 2004, 16, 15-18.	0.7	21
47	Measurement of the G asymmetry for the $\hat{p} \cdot \hat{\rho}$ channels in the $\hat{p}$ (1232) resonance region. <i>European Physical Journal A</i> , 2005, 26, 135-140.	1.0	21
48	In vitro and in vivo BNCT investigations using a carborane containing sulfonamide targeting CAIX epitopes on malignant pleural mesothelioma and breast cancer cells. <i>Scientific Reports</i> , 2020, 10, 19274.	1.6	21
49	Selective uptake of p-boronophenylalanine by osteosarcoma cells for boron neutron capture therapy. <i>Applied Radiation and Isotopes</i> , 2009, 67, S341-S344.	0.7	20
50	Efficacy of boron neutron capture therapy on liver metastases of colon adenocarcinoma: optical and ultrastructural study in the rat. <i>Oncology Reports</i> , 2004, 11, 149-53.	1.2	20
51	Neutron flux and gamma dose measurement in the BNCT irradiation facility at the TRIGA reactor of the University of Pavia. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2018, 414, 113-120.	0.6	19
52	A compact solid-state detector for small angle particle tracking. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2000, 452, 185-191.	0.7	18
53	Assessing advantages of sequential boron neutron capture therapy (BNCT) in an oral cancer model with normalized blood vessels. <i>Acta Oncologica</i> , 2015, 54, 99-106.	0.8	18
54	Understanding the potentiality of accelerator based-boron neutron capture therapy for osteosarcoma: dosimetry assessment based on the reported clinical experience. <i>Radiation Oncology</i> , 2017, 12, 130.	1.2	18

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55	Translational boron neutron capture therapy (BNCT) studies for the treatment of tumors in lung. <i>International Journal of Radiation Biology</i> , 2019, 95, 646-654.	1.0	18
56	Thermal neutron irradiation field design for boron neutron capture therapy of human explanted liver. <i>Medical Physics</i> , 2007, 34, 4700-4705.	1.6	17
57	Boron uptake measurements in a rat model for Boron Neutron Capture Therapy of lung tumours. <i>Applied Radiation and Isotopes</i> , 2011, 69, 394-398.	0.7	17
58	Accelerated Tests on Si and SiC Power Transistors with Thermal, Fast and Ultra-Fast Neutrons. <i>Sensors</i> , 2020, 20, 3021.	2.1	17
59	<i>In Vitro</i> and <i>In Vivo</i> Studies of Boron Neutron Capture Therapy: Boron Uptake/Washout and Cell Death. <i>Radiation Research</i> , 2011, 175, 452-462.	0.7	16
60	Set-up and calibration of a method to measure <sup>10</sup> B concentration in biological samples by neutron autoradiography. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2012, 274, 51-56.	0.6	16
61	Simulation of Resistive Plate Chamber sensitivity to neutrons. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2001, 461, 57-59.	0.7	15
62	Design, synthesis and preliminary in-vitro studies of novel boronated monocarbonyl analogues of Curcumin (BMAC) for antitumor and $\beta$ -amyloid disaggregation activity. <i>Bioorganic Chemistry</i> , 2019, 93, 103324.	2.0	15
63	Potentialities of High-Resolution 3-D CZT Drift Strip Detectors for Prompt Gamma-Ray Measurements in BNCT. <i>Sensors</i> , 2022, 22, 1502.	2.1	15
64	RPC $\beta$ sensitivity simulation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2000, 456, 99-102.	0.7	14
65	Feasibility study on the utilization of boron neutron capture therapy (BNCT) in a rat model of diffuse lung metastases. <i>Applied Radiation and Isotopes</i> , 2009, 67, S332-S335.	0.7	14
66	Helicity dependence of the $\gamma$ $\rightarrow$ $\pi$ NN reactions in the $\Delta$ -resonance region. <i>European Physical Journal A</i> , 2010, 44, 189-201.	1.0	14
67	The role of DNA cluster damage and chromosome aberrations in radiation-induced cell killing: a theoretical approach. <i>Radiation Protection Dosimetry</i> , 2015, 166, 75-79.	0.4	14
68	Testing and linearity calibration of films of phenol compounds exposed to thermal neutron field for EPR dosimetry. <i>Applied Radiation and Isotopes</i> , 2015, 106, 129-133.	0.7	14
69	Toward a clinical application of <i>ex situ</i> boron neutron capture therapy for lung tumors at the RA-3 reactor in Argentina. <i>Medical Physics</i> , 2015, 42, 4161-4173.	1.6	14
70	Two-body photodisintegration of <sup>3</sup> He between 200 and 800 MeV. <i>Nuclear Physics A</i> , 1994, 578, 525-541.	0.6	13
71	Carborane-Conjugated 2-Quinolincarboxamide Ligands of the Translocator Protein for Boron Neutron Capture Therapy. <i>Bioconjugate Chemistry</i> , 2010, 21, 2213-2221.	1.8	13
72	A Model of Radiation-Induced Cell Killing: Insights into Mechanisms and Applications for Hadron Therapy. <i>Radiation Research</i> , 2013, 180, 307-315.	0.7	13

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73	Thirteenth International Congress on Neutron Capture Therapy. Applied Radiation and Isotopes, 2009, 67, S1-S2.	0.7	12
74	Boron Determination in Liver Tissue by Combining Quantitative Neutron Capture Radiography (QNCR) and Histological Analysis for BNCT Treatment Planning at the TRIGA Mainz. Radiation Research, 2011, 176, 388-396.	0.7	12
75	A micro-PET/CT approach using O-(2-[18F]fluoroethyl)-l-tyrosine in an experimental animal model of F98 glioma for BNCT. Applied Radiation and Isotopes, 2011, 69, 1717-1720.	0.7	12
76	Boron concentration measurement in biological tissues by charged particle spectrometry. Radiation and Environmental Biophysics, 2013, 52, 493-503.	0.6	12
77	Innovative 3D sensitive CdZnTe solid state detector for dose monitoring in Boron Neutron Capture Therapy (BNCT). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 936, 50-51.	0.7	12
78	Boron absorption imaging in rat lung colon adenocarcinoma metastases. Journal of Physics: Conference Series, 2006, 41, 123-126.	0.3	11
79	Microdosimetric measurements in the thermal neutron irradiation facility of LENA reactor. Applied Radiation and Isotopes, 2014, 88, 147-152.	0.7	11
80	Preliminary characterization of a CdZnTe photon detector for BNCT-SPECT. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 903, 134-139.	0.7	11
81	A Novel Approach to Design and Evaluate BNCT Neutron Beams Combining Physical, Radiobiological, and Dosimetric Figures of Merit. Biology, 2021, 10, 174.	1.3	11
82	Calculations of dose distributions in the lungs of a rat model irradiated in the thermal column of the TRIGA reactor in Pavia. Applied Radiation and Isotopes, 2009, 67, S210-S213.	0.7	10
83	Evaluation of the dose enhancement of combined $^{10}\text{B}$ + $^{157}\text{Gd}$ neutron capture therapy (NCT). Radiation Protection Dosimetry, 2015, 166, 369-373.	0.4	10
84	Inter-comparison of boron concentration measurements at INFN-University of Pavia (Italy) and CNEA (Argentina). Applied Radiation and Isotopes, 2015, 105, 35-39.	0.7	10
85	Operative Modalities and Effects of BNCT on Liver Metastases of Colon Adenocarcinoma. , 2001, , 1427-1440.		10
86	The RPC system for the CMS experiment at the LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 508, 137-141.	0.7	9
87	In vitro neutron irradiation of glioma and endothelial cultured cells. Applied Radiation and Isotopes, 2009, 67, S336-S340.	0.7	9
88	Simulation of the neutron flux in the irradiation facility at RA-3 reactor. Applied Radiation and Isotopes, 2011, 69, 1924-1927.	0.7	9
89	From radiation-induced chromosome damage to cell death: modelling basic mechanisms and applications to boron neutron capture therapy. Radiation Protection Dosimetry, 2011, 143, 523-527.	0.4	9
90	Gamma Residual Radioactivity Measurements on Rats and Mice Irradiated in the Thermal Column of a Triga Mark II Reactor for BNCT. Health Physics, 2014, 107, 534-541.	0.3	9

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91	A brief review on reactor-based neutron sources for boron neutron capture therapy. <i>Therapeutic Radiology and Oncology</i> , 0, 2, 47-47.	0.2	9
92	Evaluation of selective boron absorption in liver tumors. <i>Strahlentherapie Und Onkologie</i> , 1989, 165, 170-2.	1.0	9
93	First results on RB2 muon barrel RPC detector for CMS. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 508, 142-146.	0.7	8
94	Cell death following BNCT: A theoretical approach based on Monte Carlo simulations. <i>Applied Radiation and Isotopes</i> , 2011, 69, 1745-1747.	0.7	8
95	A polarized $^3\text{He}$ target for the photon beam at MAMI. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 648, 35-40.	0.7	8
96	Local and global performance of double-gap resistive plate chambers operated in avalanche mode. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1999, 434, 244-253.	0.7	7
97	Experimental results on RPC neutron sensitivity. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 508, 79-82.	0.7	7
98	$^1\text{H}$ and $^{10}\text{B}$ NMR and MRI investigation of boron- and gadolinium- $\alpha$ -boron compounds in boron neutron capture therapy. <i>Applied Radiation and Isotopes</i> , 2011, 69, 1702-1705.	0.7	7
99	Development of a Method to Use Boron Neutron Capture Therapy for Diffused Tumours of Liver (Taormina Project). , 1996, , 783-794.		7
100	Performance of the first RPC station prototype for the CMS barrel detector. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2000, 456, 103-108.	0.7	6
101	Neutron irradiation of RPCs for the CMS experiment. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 508, 120-123.	0.7	6
102	Measurement of the helicity-dependent total cross-section for the $\gamma n \rightarrow p \pi^0$ reaction. <i>European Physical Journal A</i> , 2011, 47, 1.	1.0	6
103	Extending neutron autoradiography technique for boron concentration measurements in hard tissues. <i>Applied Radiation and Isotopes</i> , 2018, 137, 62-67.	0.7	6
104	Colocalization of tracks from boron neutron capture reactions and images of isolated cells. <i>Applied Radiation and Isotopes</i> , 2021, 167, 109353.	0.7	6
105	Modelling the response of semiconductor based thermal neutron detectors with MCNP 6.2 and PHITS. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2021, 1018, 165855.	0.7	6
106	Histiocytic Activation following Neutron Irradiation of Boron-Enriched Rat Liver Metastases. <i>Annals of the New York Academy of Sciences</i> , 1997, 832, 274-278.	1.8	5
107	The bakelite for the RPCs of the experiment CMS. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2000, 456, 132-136.	0.7	5
108	Long-term performance of double gap resistive plate chambers under gamma irradiation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 477, 293-298.	0.7	5

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109	Boron concentration measurements by alpha spectrometry and quantitative neutron autoradiography in cells and tissues treated with different boronated formulations and administration protocols. Applied Radiation and Isotopes, 2014, 88, 78-80.	0.7	5
110	Comparative study of the radiobiological effects induced on adherent vs suspended cells by BNCT, neutrons and gamma rays treatments. Applied Radiation and Isotopes, 2015, 106, 226-232.	0.7	5
111	Design of a BNCT irradiation room based on proton accelerator and beryllium target. Applied Radiation and Isotopes, 2020, 165, 109314.	0.7	5
112	MORTALITY AND STERILITY INDUCED IN <i>PIOPHILA CASEI</i> BY X-RAY AND NEUTRON IRRADIATION. Entomologia Experimentalis Et Applicata, 1977, 22, 60-70.	0.7	4
113	Results from a complete simulation study of the RPC based muon trigger system for the CMS experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 461, 483-485.	0.7	4
114	Neutron Capture Therapy: A Highly Selective Tumor Treatment. Nuclear Physics News, 2013, 23, 24-28.	0.1	4
115	Neutron-induced Single Event Upset on the RPC front-end chips for the CMS experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 484, 494-502.	0.7	3
116	Publisher's Note: Measurement of the Gerasimov-Drell-Hearn Integrand for $H_2$ from 200 to 800 MeV [Phys. Rev. Lett. 97, 202303 (2006)]. Physical Review Letters, 2007, 98, .	2.9	3
117	Measurement of $\hat{\mu}^{\pm}$ particle energy loss in biological tissue below 2MeV. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2938-2943.	0.6	3
118	Measuring the stopping power of $\hat{\mu}^{\pm}$ particles in compact bone for BNCT. Journal of Physics: Conference Series, 2015, 583, 012047.	0.3	3
119	Reprint of Inter-comparison of boron concentration measurements at INFN-University of Pavia (Italy) and CNEA (Argentina). Applied Radiation and Isotopes, 2015, 106, 171-175.	0.7	3
120	Performance of resistive plate chambers for the muon detection at CMS. Nuclear Physics, Section B, Proceedings Supplements, 1999, 78, 90-95.	0.5	2
121	The resistive plate chambers for CMS and their simulation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 471, 55-59.	0.7	2
122	Dose distributions in phantoms irradiated in thermal columns of two different nuclear reactors. Radiation Protection Dosimetry, 2007, 126, 640-644.	0.4	2
123	Measuring the near-target neutron field of a $D\text{-}D$ fusion facility with the novel NCT-WES spectrometer. European Physical Journal Plus, 2022, 137, .	1.2	2
124	RECENT EXPERIMENTAL RESULTS AND DEVELOPMENTS ON THE RESISTIVE PLATE CHAMBERS FOR THE CMS EXPERIMENT. International Journal of Modern Physics A, 2001, 16, 1135-1138.	0.5	1
125	Charged particle spectrometry to measure $^{10}B$ concentration in bone. Radiation and Environmental Biophysics, 2019, 58, 237-245.	0.6	1
126	New results on high-resolution 3-D CZT drift strip detectors. , 2020, , .		1



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127	An automated system to control the polarization voltage of silicon detectors. IEEE Transactions on Nuclear Science, 1995, 42, 57-60.	1.2	0
128	Nuclear magnetic resonance study of Gd-based nanoparticles to tag boron compounds in boron neutron capture therapy. Journal of Applied Physics, 2011, 109, 07B302.	1.1	0
129	Dose estimation in B16 tumour bearing mice for future irradiation in the thermal column of the TRIGA reactor after B/Gd/LDL adduct infusion. Applied Radiation and Isotopes, 2011, 69, 1842-1845.	0.7	0
130	Liver Metastases. , 2012, , 461-503.		0
131	Twin-Shaping Filter Technique Applied to CZT Detectors. , 2017, , .		0
132	High performance 3D CZT spectro-imager for BNCT-SPECT: preliminary characterization. , 2018, , .		0
133	Prompt gamma tomography for BNCT-SPECT: a feasibility study using small animal phantoms. , 2018, , .		0