

# Piernicola Oliva

## List of Publications by Year in descending order

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Version: 2024-02-01

69  
papers

1,370  
citations

279798

23  
h-index

377865

34  
g-index

70  
all docs

70  
docs citations

70  
times ranked

1636  
citing authors

#	ARTICLE	IF	CITATIONS
1	A completely automated CAD system for mass detection in a large mammographic database. Medical Physics, 2006, 33, 3066-3075.	3.0	92
2	Mammogram Segmentation by Contour Searching and Mass Lesions Classification With Neural Network. IEEE Transactions on Nuclear Science, 2006, 53, 2827-2833.	2.0	86
3	Automatic Lung Segmentation in CT Images with Accurate Handling of the Hilar Region. Journal of Digital Imaging, 2011, 24, 11-27.	2.9	74
4	A novel multithreshold method for nodule detection in lung CT. Medical Physics, 2009, 36, 3607-3618.	3.0	73
5	Monte Carlo simulation of X-ray imaging and spectroscopy experiments using quadric geometry and variance reduction techniques. Computer Physics Communications, 2014, 185, 1044-1052.	7.5	65
6	Gray Matter Alterations in Young Children with Autism Spectrum Disorders: Comparing Morphometry at the Voxel and Regional Level. Journal of Neuroimaging, 2015, 25, 866-874.	2.0	54
7	Voxel-based Monte Carlo simulation of X-ray imaging and spectroscopy experiments. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 1747-1754.	2.9	53
8	Advancements towards the implementation of clinical phase-contrast breast computed tomography at Elettra. Journal of Synchrotron Radiation, 2019, 26, 1343-1353.	2.4	47
9	Phase-contrast breast CT: the effect of propagation distance. Physics in Medicine and Biology, 2018, 63, 24NT03.	3.0	42
10	Quantitative evaluation of single-shot inline phase contrast imaging using an inverse compton x-ray source. Applied Physics Letters, 2010, 97, .	3.3	40
11	The SPARC_LAB Thomson source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 829, 237-242.	1.6	36
12	An improved Marching Cube algorithm for 3D data segmentation. Computer Physics Communications, 2013, 184, 777-782.	7.5	34
13	Large-area single-photon-counting CdTe detector for synchrotron radiation computed tomography: a dedicated pre-processing procedure. Journal of Synchrotron Radiation, 2018, 25, 1068-1077.	2.4	33
14	Comparison of two portable solid state detectors with an improved collimation and alignment device for mammographic x-ray spectroscopy. Medical Physics, 2006, 33, 3469-3477.	3.0	30
15	Start-to-end simulation of a Thomson source for mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 615, 93-99.	1.6	30
16	The FIRST experiment at GSI. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 678, 130-138.	1.6	30
17	Quantitative characterization of breast tissues with dedicated CT imaging. Physics in Medicine and Biology, 2019, 64, 155011.	3.0	30
18	Direct analysis of molybdenum target generated x-ray spectra with a portable device. Medical Physics, 2004, 31, 2763-2770.	3.0	28

#	ARTICLE	IF	CITATIONS
19	Use of Monte Carlo simulations for cultural heritage X-ray fluorescence analysis. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2015, 108, 15-20.	2.9	27
20	Detectors and Cultural Heritage: The INFN-CHNet Experience. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3462.	2.5	26
21	Distributed medical images analysis on a Grid infrastructure. <i>Future Generation Computer Systems</i> , 2007, 23, 475-484.	7.5	25
22	Evaluation of Altered Functional Connections in Male Children With Autism Spectrum Disorders on Multiple-Site Data Optimized With Machine Learning. <i>Frontiers in Psychiatry</i> , 2019, 10, 620.	2.6	25
23	Image quality comparison between a phase-contrast synchrotron radiation breast CT and a clinical breast CT: a phantom based study. <i>Scientific Reports</i> , 2019, 9, 17778.	3.3	24
24	Measurement of an inverse Compton scattering source local spectrum using k-edge filters. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	23
25	Monochromatic breast computed tomography with synchrotron radiation: phase-contrast and phase-retrieved image comparison and full-volume reconstruction. <i>Journal of Medical Imaging</i> , 2018, 6, 1.	1.5	23
26	MAGIC-5: an Italian mammographic database of digitised images for research. <i>Radiologia Medica</i> , 2008, 113, 477-485.	7.7	22
27	CMOS APS detector characterization for quantitative X-ray imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2013, 703, 26-32.	1.6	21
28	Dealing with confounders and outliers in classification medical studies: The Autism Spectrum Disorders case study. <i>Artificial Intelligence in Medicine</i> , 2020, 108, 101926.	6.5	20
29	Phase contrast imaging simulation and measurements using polychromatic sources with small source-object distances. <i>Journal of Applied Physics</i> , 2008, 104, 093102.	2.5	15
30	Compact x-ray sources for mammographic applications: Monte Carlo simulations of image quality. <i>Medical Physics</i> , 2009, 36, 5149-5161.	3.0	15
31	Performance of upstream interaction region detectors for the FIRST experiment at GSI. <i>Journal of Instrumentation</i> , 2012, 7, P02006-P02006.	1.2	14
32	Experimental study of Compton scattering reduction in digital mammographic imaging. <i>IEEE Transactions on Nuclear Science</i> , 2002, 49, 2361-2365.	2.0	13
33	Visibility of tumor-like details in inline phase contrast mammography using quasimonochromatic X-ray sources. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 608, S66-S69.	1.6	13
34	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.	1.6	13
35	Experimental optimization of the energy for breast-CT with synchrotron radiation. <i>Scientific Reports</i> , 2020, 10, 17430.	3.3	13
36	Optimization of the energy for Breast monochromatic absorption X-ray Computed Tomography. <i>Scientific Reports</i> , 2019, 9, 13135.	3.3	11

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37	Muonic atom X-ray spectroscopy for non-destructive analysis of archeological samples. Journal of Radioanalytical and Nuclear Chemistry, 2019, 322, 1357-1363.	1.5	11
38	Status of Thomson source at SPARC/PLASMONX. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, S90-S93.	1.6	10
39	Multi-site harmonization of MRI data uncovers machine-learning discrimination capability in barely separable populations: An example from the ABIDE dataset. NeuroImage: Clinical, 2022, 35, 103082.	2.7	10
40	Quantification of pulmonary involvement in COVID-19 pneumonia by means of a cascade of two U-nets: training and assessment on multiple datasets using different annotation criteria. International Journal of Computer Assisted Radiology and Surgery, 2022, 17, 229-237.	2.8	9
41	Performance of a medical imaging system for photons in the 60â€“140 keV energy range. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 461, 422-424.	1.6	8
42	Spectroscopic and imaging capabilities of a pixellated photon counting system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 466, 74-78.	1.6	8
43	Measurements of spectral and position resolution on a 16x16 pixel CZT imaging hard x-ray detector. , 2004, , .		8
44	Quantitative phase retrieval with picosecond X-ray pulses from the ATF Inverse Compton Scattering source. Optics Express, 2011, 19, 2748.	3.4	8
45	Evaluation of the imaging properties of a direct detection single photon counting based system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 461, 389-392.	1.6	7
46	The CALMA project. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 461, 428-429.	1.6	7
47	Elemental investigation on Spanish dinosaur bones by x-ray fluorescence. Physica Scripta, 2013, 88, 015802.	2.5	7
48	Diagnostic performance of radiologists with and without different CAD systems for mammography. , 2003, 5034, 51.		6
49	Application of an expectation maximization method to the reconstruction of X-ray-tube spectra from transmission data. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 102, 42-47.	2.9	6
50	Comparison of imaging properties of several digital radiographic systems. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 466, 95-98.	1.6	5
51	High performance DAQ for muon spectroscopy experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 936, 327-328.	1.6	5
52	Radiochromic film dosimetry in synchrotron radiation breast computed tomography: a phantom study. Journal of Synchrotron Radiation, 2020, 27, 762-771.	2.4	5
53	Optimization of a customized simultaneous algebraic reconstruction technique algorithm for phase-contrast breast computed tomography. Physics in Medicine and Biology, 2022, 67, 095012.	3.0	5
54	Advantages of quasi-monochromatic X-ray sources in absorption mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, S106-S108.	1.6	4

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55	Optimization of a customized Simultaneous Algebraic Reconstruction Technique algorithm for breast CT. , 2019, , .		3
56	Residual Convolutional Neural Networks to Automatically Extract Significant Breast Density Features. Communications in Computer and Information Science, 2019, , 28-35.	0.5	3
57	The FIRST experiment for nuclear fragmentation measurements at GSI. , 2011, , .		2
58	Preliminary study of an angiographic and angio-tomographic technique based on K-edge filters. Journal of Applied Physics, 2013, 114, .	2.5	2
59	Quantitative evaluation of breast CT reconstruction by means of figures of merit based on similarity metrics. , 2017, , .		2
60	Radiomic and Dosiomic Profiling of Paediatric Medulloblastoma Tumours Treated with Intensity Modulated Radiation Therapy. Communications in Computer and Information Science, 2019, , 56-64.	0.5	2
61	Monochromatic breast CT: absorption and phase-retrieved images. , 2018, , .		2
62	FLUXEN portable equipment for direct X-ray spectra measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 518, 389-390.	1.6	1
63	GPCALMA: a grid approach to mammographic screening. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 518, 394-398.	1.6	1
64	Dependence of image quality on energy spread for a Bragg diffraction based radiography system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 580, 986-989.	1.6	1
65	<title>Novel types of ionizing radiation sources at LNF-PLASMONX facility</title>. , 2007, , .		0
66	Proton- and x-ray beams generated by ultra-fast CO <sub>2</sub> lasers for medical applications. , 2011, , .		0
67	The KENTROS detector for identification and kinetic energy measurements of nuclear fragments at polar angles between 5 and 90 degrees. , 2012, , .		0
68	Experiment FIRST: Fragmentation of <sup>12</sup> C beam at 400 MeV/u. , 2013, , .		0
69	Processing Magnetic Resonance Image Features with One-class Support Vector Machines. , 2016, , .		0