# Piernicola Oliva

List of Publications by Year
in descending order

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|---|---|---|---|
| **69**<br>papers | **1,370**<br>citations | 279798<br>**23**<br>h-index | 377865<br>**34**<br>g-index |
| **70**<br>all docs | **70**<br>docs citations | **70**<br>times ranked | **1636**<br>citing authors |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 1 | 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 |
| 2 | 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 |
| 3 | 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 |
| 4 | Detectors and Cultural Heritage: The INFN-CHNet Experience. Applied Sciences (Switzerland), 2021, 11, 3462. | 2.5 | 26 |
| 5 | Dealing with confounders and outliers in classification medical studies: The Autism Spectrum Disorders case study. Artificial Intelligence in Medicine, 2020, 108, 101926. | 6.5 | 20 |
| 6 | Experimental optimization of the energy for breast-CT with synchrotron radiation. Scientific Reports, 2020, 10, 17430. | 3.3 | 13 |
| 7 | Radiochromic film dosimetry in synchrotron radiation breast computed tomography: a phantom study. Journal of Synchrotron Radiation, 2020, 27, 762-771. | 2.4 | 5 |
| 8 | Quantitative characterization of breast tissues with dedicated CT imaging. Physics in Medicine and Biology, 2019, 64, 155011. | 3.0 | 30 |
| 9 | Evaluation of Altered Functional Connections in Male Children With Autism Spectrum Disorders on Multiple-Site Data Optimized With Machine Learning. Frontiers in Psychiatry, 2019, 10, 620. | 2.6 | 25 |
| 10 | Optimization of the energy for Breast monochromatic absorption X-ray Computed Tomography. Scientific Reports, 2019, 9, 13135. | 3.3 | 11 |
| 11 | Optimization of a customized Simultaneous Algebraic Reconstruction Technique algorithm for breast CT. , 2019, , . | | 3 |
| 12 | Advancements towards the implementation of clinical phase-contrast breast computed tomography at Elettra. Journal of Synchrotron Radiation, 2019, 26, 1343-1353. | 2.4 | 47 |
| 13 | Image quality comparison between a phase-contrast synchrotron radiation breast CT and a clinical breast CT: a phantom based study. Scientific Reports, 2019, 9, 17778. | 3.3 | 24 |
| 14 | 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 |
| 15 | 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 |
| 16 | Residual Convolutional Neural Networks to Automatically Extract Significant Breast Density Features. Communications in Computer and Information Science, 2019, , 28-35. | 0.5 | 3 |
| 17 | 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 |
| 18 | Phase-contrast breast CT: the effect of propagation distance. Physics in Medicine and Biology, 2018, 63, 24NT03. | 3.0 | 42 |

| # | Article | IF | Citations |
|---|---------|----|-----------|
| 19 | Large-area single-photon-counting CdTe detector for synchrotron radiation computed tomography: aÂdedicated pre-processing procedure. Journal of Synchrotron Radiation, 2018, 25, 1068-1077. | 2.4 | 33 |
| 20 | Monochromatic breast computed tomography with synchrotron radiation: phase-contrast and phase-retrieved image comparison and full-volume reconstruction. Journal of Medical Imaging, 2018, 6, 1. | 1.5 | 23 |
| 21 | Monochromatic breast CT: absorption and phase-retrieved images. , 2018, , . | | 2 |
| 22 | Quantitative evaluation of breast CT reconstruction by means of figures of merit based on similarity metrics. , 2017, , . | | 2 |
| 23 | 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 |
| 24 | Processing Magnetic Resonance Image Features with One-class Support Vector Machines. , 2016, , . | | 0 |
| 25 | 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 |
| 26 | Use of Monte Carlo simulations for cultural heritage X-ray fluorescence analysis. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 108, 15-20. | 2.9 | 27 |
| 27 | 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 |
| 28 | 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 |
| 29 | Performance of the reconstruction algorithms of the FIRST experiment pixel sensors vertex detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 767, 34-40. | 1.6 | 13 |
| 30 | CMOS APS detector characterization for quantitative X-ray imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 703, 26-32. | 1.6 | 21 |
| 31 | An improved Marching Cube algorithm for 3D data segmentation. Computer Physics Communications, 2013, 184, 777-782. | 7.5 | 34 |
| 32 | Elemental investigation on Spanish dinosaur bones by x-ray fluorescence. Physica Scripta, 2013, 88, 015802. | 2.5 | 7 |
| 33 | Preliminary study of an angiographic and angio-tomographic technique based on K-edge filters. Journal of Applied Physics, 2013, 114, . | 2.5 | 2 |
| 34 | Experiment FIRST: Fragmentation of $^{12}$C beam at 400 MeV/u. , 2013, , . | | 0 |
| 35 | Measurement of an inverse Compton scattering source local spectrum using k-edge filters. Applied Physics Letters, 2012, 100, . | 3.3 | 23 |
| 36 | The KENTROS detector for identification and kinetic energy measurements of nuclear fragments at polar angles between 5 and 90 degrees. , 2012, , . | | 0 |

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|---|---------|-----|-----------|
| 37 | Performance of upstream interaction region detectors for the FIRST experiment at GSI. Journal of Instrumentation, 2012, 7, P02006-P02006. | 1.2 | 14 |
| 38 | 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 |
| 39 | The FIRST experiment for nuclear fragmentation measurements at GSI. , 2011, , . |  | 2 |
| 40 | Quantitative phase retrieval with picosecond X-ray pulses from the ATF Inverse Compton Scattering source. Optics Express, 2011, 19, 2748. | 3.4 | 8 |
| 41 | Proton- and x-ray beams generated by ultra-fast $CO_2$ lasers for medical applications. , 2011, , . |  | 0 |
| 42 | Automatic Lung Segmentation in CT Images with Accurate Handling of the Hilar Region. Journal of Digital Imaging, 2011, 24, 11-27. | 2.9 | 74 |
| 43 | 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 |
| 44 | Quantitative evaluation of single-shot inline phase contrast imaging using an inverse compton x-ray source. Applied Physics Letters, 2010, 97, . | 3.3 | 40 |
| 45 | Compact x‑ray sources for mammographic applications: Monte Carlo simulations of image quality. Medical Physics, 2009, 36, 5149-5161. | 3.0 | 15 |
| 46 | 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 |
| 47 | Visibility of tumor-like details in inline phase contrast mammography using quasimonochromatic X-ray sources. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, S66-S69. | 1.6 | 13 |
| 48 | 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 |
| 49 | A novel multithreshold method for nodule detection in lung CT. Medical Physics, 2009, 36, 3607-3618. | 3.0 | 73 |
| 50 | MAGIC-5: an Italian mammographic database of digitised images for research. Radiologia Medica, 2008, 113, 477-485. | 7.7 | 22 |
| 51 | Phase contrast imaging simulation and measurements using polychromatic sources with small source-object distances. Journal of Applied Physics, 2008, 104, 093102. | 2.5 | 15 |
| 52 | <title>Novel types of ionizing radiation sources at LNF-PLASMONX facility</title>. , 2007, , . |  | 0 |
| 53 | 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 |
| 54 | Distributed medical images analysis on a Grid infrastructure. Future Generation Computer Systems, 2007, 23, 475-484. | 7.5 | 25 |

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|---|---------|-----|-----------|
| 55 | Mammogram Segmentation by Contour Searching and Mass Lesions Classification With Neural Network. IEEE Transactions on Nuclear Science, 2006, 53, 2827-2833. | 2.0 | 86 |
| 56 | A completely automated CAD system for mass detection in a large mammographic database. Medical Physics, 2006, 33, 3066-3075. | 3.0 | 92 |
| 57 | 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 |
| 58 | Direct analysis of molybdenum target generated x-ray spectra with a portable device. Medical Physics, 2004, 31, 2763-2770. | 3.0 | 28 |
| 59 | Measurements of spectral and position resolution on a 16x16 pixel CZT imaging hard x-ray detector. , 2004, , . | | 8 |
| 60 | 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 |
| 61 | 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 |
| 62 | 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 |
| 63 | Diagnostic performance of radiologists with and without different CAD systems for mammography. , 2003, 5034, 51. | | 6 |
| 64 | Experimental study of Compton scattering reduction in digital mammographic imaging. IEEE Transactions on Nuclear Science, 2002, 49, 2361-2365. | 2.0 | 13 |
| 65 | 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 |
| 66 | Performance of a medical imaging system for photons in the 60–140 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 |
| 67 | 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 |
| 68 | 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 |
| 69 | 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 |