Maria Evelina Fantacci

List of Publications by Year
in descending order

121	2,632	331670	223800
papers	citations	21 h-index	46 g-index

121	121	121	2699
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Validation, comparison, and combination of algorithms for automatic detection of pulmonary nodules in computed tomography images: The LUNA16 challenge. Medical Image Analysis, 2017, 42, 1-13.	11.6	710
2	Comparing and combining algorithms for computer-aided detection of pulmonary nodules in computed tomography scans: The ANODE09 study. Medical Image Analysis, 2010, 14, 707-722.	11.6	245
3	A completely automated CAD system for mass detection in a large mammographic database. Medical Physics, 2006, 33, 3066-3075.	3.0	92
4	Large scale validation of the M5L lung CAD on heterogeneous CT datasets. Medical Physics, 2015, 42, 1477-1489.	3.0	91
5	Mammogram Segmentation by Contour Searching and Mass Lesions Classification With Neural Network. IEEE Transactions on Nuclear Science, 2006, 53, 2827-2833.	2.0	86
6	Lung nodule detection in low-dose and thin-slice computed tomography. Computers in Biology and Medicine, 2008, 38, 525-534.	7.0	80
7	Characterization of mammographic masses using a gradient-based segmentation algorithm and a neural classifier. Computers in Biology and Medicine, 2007, 37, 1479-1491.	7.0	73
8	A novel multithreshold method for nodule detection in lung CT. Medical Physics, 2009, 36, 3607-3618.	3.0	73
9	<scp>H</scp>ippocampal subfields at ultra high field MRI: <scp>A</scp>n overview of segmentation and measurement methods. Hippocampus, 2017, 27, 481-494.	1.9	51
10	Combination of computer-aided detection algorithms for automatic lung nodule identification. International Journal of Computer Assisted Radiology and Surgery, 2012, 7, 455-464.	2.8	46
11	Predictive Models Based on Support Vector Machines: Wholeâ€Brain versus Regional Analysis of Structural MRI in the Alzheimer's Disease. Journal of Neuroimaging, 2015, 25, 552-563.	2.0	42
12	Automatic analysis of medial temporal lobe atrophy from structural MRIs for the early assessment of Alzheimer disease. Medical Physics, 2009, 36, 3737-3747.	3.0	39
13	Pleural nodule identification in low-dose and thin-slice lung computed tomography. Computers in Biology and Medicine, 2009, 39, 1137-1144.	7.0	36
14	Purification, cloning and characterisation of odorant- and pheromone-binding proteins from pig nasal epithelium. Cellular and Molecular Life Sciences, 2001, 58, 823-834.	5.4	34
15	Strategies to develop radiomics and machine learning models for lung cancer stage and histology prediction using small data samples. Physica Medica, 2021, 90, 13-22.	0.7	32
16	MEDIPIX: a VLSI chip for a GaAs pixel detector for digital radiology. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 422, 201-205.	1.6	31
17	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
18	Evaluation of the intra- and inter-method agreement of brain MRI segmentation software packages: A comparison between SPM12 and FreeSurfer v6.0. Physica Medica, 2019, 64, 261-272.	0.7	30

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19	Distributed medical images analysis on a Grid infrastructure. Future Generation Computer Systems, 2007, 23, 475-484.	7.5	25
20	3-D object segmentation using ant colonies. Pattern Recognition, 2010, 43, 1476-1490.	8.1	24
21	A cloud-based computer-aided detection system improves identification of lung nodules on computed tomography scans of patients with extra-thoracic malignancies. European Radiology, 2019, 29, 144-152.	4.5	24
22	First X-ray images with a double-sided microstrips silicon crystal. A novel detector for digital radiography?. Physics in Medicine and Biology, 1992, 37, 1167-1170.	3.0	22
23	MAGIC-5: an Italian mammographic database of digitised images for research. Radiologia Medica, 2008, 113, 477-485.	7.7	22
24	Low contrast imaging with a GaAs pixel digital detector. IEEE Transactions on Nuclear Science, 2000, 47, 1478-1482.	2.0	21
25	Gallium arsenide pixel detectors for medical imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 395, 148-151.	1.6	20
26	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
27	GaAs pixel radiation detector as an autoradiography tool for genetic studies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 422, 242-246.	1.6	19
28	Use of silicon and GaAs pixel detectors for digital autoradiography. IEEE Transactions on Nuclear Science, 1997, 44, 929-933.	2.0	18
29	Autoradiography with silicon strip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 381, 527-530.	1.6	17
30	A Medipix2-based imaging system for digital mammography with silicon pixel detectors. IEEE Transactions on Nuclear Science, 2004, 51, 3081-3085.	2.0	17
31	Some new results on semi-insulating GaAs detectors for low energy X-rays. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 355, 425-427.	1.6	16
32	Spectroscopic performance of semi-insulating GaAs detectors for digital radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 422, 247-251.	1.6	16
33	An automatic system to discriminate malignant from benign massive lesions on mammograms. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 569, 596-600.	1.6	15
34	An automated system for lung nodule detection in low-dose computed tomography. , 2007, , .		15
35	Digital imaging in radiology: preliminary results obtained with a high spatial resolution 2D silicon detector. IEEE Transactions on Nuclear Science, 1993, 40, 987-991.	2.0	14
36	Comparison of different GaAs detectors for X-ray digital radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1994, 338, 549-555.	1.6	14

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37	A prototype for a mammographic head and related developments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 518, 382-385.	1.6	14
38	Experimental study of LEC GaAs detectors for X-ray digital radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 380, 410-413.	1.6	13
39	Experimental study of Compton scattering reduction in digital mammographic imaging. IEEE Transactions on Nuclear Science, 2002, 49, 2361-2365.	2.0	13
40	Characterization of the response of a double side mu -strip silicon detector to X-rays in the diagnostic energy range. IEEE Transactions on Nuclear Science, 1993, 40, 983-986.	2.0	12
41	The CALMA project: a CAD tool in breast radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 460, 107-112.	1.6	12
42	Characterization of a mammographic system based on single photon counting pixel arrays coupled to GaAs xâ€ray detectors. Medical Physics, 2009, 36, 1330-1339.	3.0	12
43	A voxel-based neural approach (VBNA) to identify lung nodules in the ANODE09 study. , 2009, , .		11
44	Approaches to juxta-pleural nodule detection in CT images within the MAGIC-5 Collaboration. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 648, S103-S106.	1.6	11
45	Electrical characterization and detector performances of a LPE GaAs detector for X-ray digital radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1994, 346, 372-378.	1.6	10
46	GaAs detector optimization for different medical imaging applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 434, 14-17.	1.6	10
47	Search of microcalcification clusters with the CALMA CAD station. , 2002, , .		10
48	Semiconductor pixel detectors for digital mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 509, 283-289.	1.6	10
49	Lung Nodule Detection in Screening Computed Tomography. , 2006, , .		10
50	Computed tomography imaging with the Adaptive Statistical Iterative Reconstruction (ASIR) algorithm: dependence of image quality on the blending level of reconstruction. Australasian Physical and Engineering Sciences in Medicine, 2018, 41, 463-473.	1.3	10
51	A study of the trap influence on the performance of semi-insulating GaAs detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 395, 349-354.	1.6	9
52	Development of semi-insulating GaAs detectors for digital radiography. Nuclear Physics, Section B, Proceedings Supplements, 1998, 61, 633-637.	0.4	9
53	Test of a GaAs-based pixel device for digital mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 460, 50-54.	1.6	9
54	Preprocessing methods for nodule detection in lung CT. International Congress Series, 2005, 1281, 1099-1103.	0.2	9

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55	A GaAs pixel detectors-based digital mammographic system: Performances and imaging tests results. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 576, 154-159.	1.6	9
56	A Degenerate Birdcage with Integrated Tx/Rx Switches and Butler Matrix for the Human Limbs at 7ÂT. Applied Magnetic Resonance, 2017, 48, 307-326.	1.2	9
57	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
58	Electrical characterization and detection performances of various semi-insulating GaAs crystals for low energy gamma-rays. IEEE Transactions on Nuclear Science, 1995, 42, 254-257.	2.0	8
59	Investigation on semi-insulating GaAs detectors using laser-induced current pulses. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 458, 158-163.	1.6	8
60	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
61	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
62	Characterization of Si pixel detectors of different thickness. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 518, 418-420.	1.6	8
63	A study on two different CAD systems for mammography as an aid to radiological diagnosis in the search of microcalcification clusters. European Journal of Radiology, 2005, 55, 264-269.	2.6	8
64	Multi-scale analysis of lung computed tomography images. Journal of Instrumentation, 2007, 2, P09007-P09007.	1.2	8
65	Average absorbed breast dose in mammography: a new possible dose index matching the requirements of the European Directive 2013/59/EURATOM. European Radiology Experimental, 2017, 1, 28.	3.4	8
66	Comprehensive assessment of image quality in synthetic and digital mammography: a quantitative comparison. Australasian Physical and Engineering Sciences in Medicine, 2019, 42, 1141-1152.	1.3	8
67	Normalized glandular dose coefficients for digital breast tomosynthesis systems with a homogeneous breast model. Physics in Medicine and Biology, 2021, 66, 065024.	3.0	8
68	Convolutional Neural Networks for Breast Density Classification: Performance and Explanation Insights. Applied Sciences (Switzerland), 2022, 12, 148.	2.5	8
69	X-ray imaging using a pixel GaAs detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 362, 547-550.	1.6	7
70	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
71	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
72	An example of technological transfer to industry: the â€œIMIâ€•project. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 518, 376-379.	1.6	7

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73	Performances of different digital mammography imaging systems: Evaluation and comparison. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 546, 14-18.	1.6	7
74	ARIANNA: A research environment for neuroimaging studies in autism spectrum disorders. Computers in Biology and Medicine, 2017, 87, 1-7.	7.0	7
75	X-ray imaging test of a /spl mu/-strip silicon detector with a transputer DAQ. IEEE Transactions on Nuclear Science, 1994, 41, 1522-1525.	2.0	6
76	Detection performance of SI GaAs detectors for nuclear medicine. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 460, 123-126.	1.6	6
77	Simulated and experimental spectroscopic performance of GaAs X-ray pixel detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 466, 188-193.	1.6	6
78	Diagnostic performance of radiologists with and without different CAD systems for mammography. , 2003, 5034, 51.		6
79	A scalable computer-aided detection system for microcalcification cluster identification in a pan-European distributed database of mammograms. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 569, 601-605.	1.6	6
80	Computer-aided detection systems to improve lung cancer early diagnosis: state-of-the-art and challenges. Journal of Physics: Conference Series, 2017, 841, 012013.	0.4	6
81	A comprehensive assessment of physical image quality of five different scanners for head CT imaging as clinically used at a single hospital centreâ€"A phantom study. PLoS ONE, 2021, 16, e0245374.	2.5	6
82	A study of the electrical and charge-collection properties of semi-insulating GaAs detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 380, 66-69.	1.6	5
83	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
84	A pixel detector-based single photon-counting system as fast spectrometer for diagnostic x-ray beams. Radiation Protection Dosimetry, 2008, 129, 119-122.	0.8	5
85	Fully automated hippocampus segmentation with virtual ant colonies. , 2012, , .		5
86	GPCALMA, a mammographic CAD in a GRID connection. International Congress Series, 2003, 1256, 944-949.	0.2	4
87	Algorithms for automatic detection of lung nodules in CT scans. , 2011, , .		4
88	Technical evaluation of image quality in synthetic mammograms obtained from 15Â° and 40Â° digital breast tomosynthesis in a commercial system: a quantitative comparison. Physical and Engineering Sciences in Medicine, 2021, 44, 23-35.	2.4	4
89	Optically activated planar GaAs switches for DC applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 418, 434-439.	1.6	3
90	GaAs devices with vertical and planar structures for optically activated high-voltage switching. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 417, 124-130.	1.6	3

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91	Performance of an imaging system based on silicon pixel detectors of different thickness. IEEE Transactions on Nuclear Science, 2005, 52, 1989-1993.	2.0	3
92	Characterization of a Single Photon Counting Imaging System by Transfer Function Analysis. IEEE Transactions on Nuclear Science, 2007, 54, 245-251.	2.0	3
93	MRIndex: A tool for evaluating muscle involvement in neuromuscular diseases from MRI images. , 2019, , .		3
94	Residual Convolutional Neural Networks to Automatically Extract Significant Breast Density Features. Communications in Computer and Information Science, 2019, , 28-35.	0.5	3
95	SI-GaAs detectors with epitaxial junction. IEEE Transactions on Nuclear Science, 1999, 46, 171-175.	2.0	2
96	Study of GaAs detectors characteristics for medical imaging. , 0, , .		2
97	Experimental test of a new technique of background suppression in digital mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 478, 95-97.	1.6	2
98	Comparison between different monitors to be used in the reading of digital mammographic images. , 2003, , .		2
99	Preliminary study to optimize the irradiation condition for future application in small animal CT. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 563, 142-145.	1.6	2
100	Dental radiology dosimetric data as routinely collected in an Italian hospital. Radiation Protection Dosimetry, 2008, 129, 227-230.	0.8	2
101	A non-invasive method for a quantitative evaluation of muscle involvement in MRI of Neuromuscular Diseases. , 2015, , .		2
102	MR Compatible Power Supply Module for PET Detectors of an Integrated PET/MR System. IEEE Transactions on Radiation and Plasma Medical Sciences, 2019, 3, 454-464.	3.7	2
103	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
104	Irradiation of optically activated SI-GaAs high-voltage switches with low and high energy protons. IEEE Transactions on Nuclear Science, 1999, 46, 121-125.	2.0	1
105	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
106	Automatic Localization of the Hippocampal Region in MR Images to Asses Early Diagnosis of Alzheimerâ€™s Disease in MCI Patients. , 2008, , .		1
107	Chest CT automatic analysis for lung nodules detection implemented on a GPU computing system. , 2012, , .		1
108	On-demand lung CT analysis with the M5L-CAD via the WIDEN front-end web interface and an OpenNebula-based cloud back-end. , 2012, , .		1

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109	Non-invasive assessment of Neuromuscular Disorders by 7 tesla Magnetic Resonance Imaging and Spectroscopy: Dedicated radio-frequency coil development. , 2015, , .		1
110	A new method to evaluate the average absorbed dose in mammography and breast tomosynthesis. , 2018, , .		1
111	InGene: a multimodal approach to the genotype-phenotype association in neuromuscular diseases. , 2018, , .		1
112	The potential contribution of artificial intelligence to dose reduction in diagnostic imaging of lung cancer. Journal of Medical Artificial Intelligence, 2019, 2, 6-6.	1.1	1
113	Quantitative Scoring of Muscle Involvement in MRI of Neuromuscular Diseases. , 2015, , .		1
114	Evaluation of Dosimetric Properties in Full Field Digital Mammography (FFDM). , 2018, , .		1
115	Experimental results on GaAs switching devices for HEP. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 410, 26-28.	1.6	0
116	Radiation damage tests of GaAs HV switches for MSGCs bias control. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 426, 216-220.	1.6	0
117	Full-field images of mammographic phantoms obtained with a single photon counting system. , 2003, , .		0
118	Characterization Of A Single Photon Counting Imaging System By The Transfer Functions Analysis. , 0, , .		0
119	Automated hippocampus segmentation with the Channeler Ant Model: Results on different datasets. , 2015, , .		0
120	90P: Clinical validation of the M5L lung computer-assisted detection system. Journal of Thoracic Oncology, 2016, 11, S95.	1.1	0
121	Evaluation of the Imaging Properties of a CT Scanner with the Adaptive Statistical Iterative Reconstruction Algorithm - Noise, Contrast and Spatial Resolution Properties of CT Images Reconstructed at Different Blending Levels. , 2017, , .		0