

# Ioannis Sechopoulos

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2210533/publications.pdf>

Version: 2024-02-01

116  
papers

4,245  
citations

196777

29  
h-index

139680

61  
g-index

120  
all docs

120  
docs citations

120  
times ranked

3436  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multireader image quality evaluation of dynamic myocardial computed tomography perfusion imaging with a novel four-dimensional noise reduction filter. <i>Acta Radiologica</i> , 2023, 64, 999-1006.	0.5	2
2	Interval Cancer Detection Using a Neural Network and Breast Density in Women with Negative Screening Mammograms. <i>Radiology</i> , 2022, 303, 269-275.	3.6	26
3	Deep learning scatter estimation for breast tomosynthesis based on a realistic compressed breast shape model in the CC view. , 2022, , .		1
4	Evaluation of reader performance during interpretation of breast cancer screening: the Recall and detection Of breast Cancer in Screening (ROCS) trial study design. <i>European Radiology</i> , 2022, , .	2.3	0
5	Patient-derived heterogeneous breast phantoms for advanced dosimetry in mammography and tomosynthesis. <i>Medical Physics</i> , 2022, 49, 5423-5438.	1.6	15
6	Artificial intelligence for breast cancer detection in mammography and digital breast tomosynthesis: State of the art. <i>Seminars in Cancer Biology</i> , 2021, 72, 214-225.	4.3	121
7	Multi-marker quantitative radiomics for mass characterization in dedicated breast CT imaging. <i>Medical Physics</i> , 2021, 48, 313-328.	1.6	12
8	Development and content validity evaluation of a candidate instrument to assess image quality in digital mammography: A mixed-method study. <i>European Journal of Radiology</i> , 2021, 134, 109464.	1.2	1
9	Reference dataset for benchmarking fetal doses derived from Monte Carlo simulations of CT exams. <i>Medical Physics</i> , 2021, 48, 523-532.	1.6	4
10	How does image quality affect radiologists' perceived ability for image interpretation and lesion detection in digital mammography?. <i>European Radiology</i> , 2021, 31, 5335-5343.	2.3	9
11	Fibroglandular tissue distribution in the breast during mammography and tomosynthesis based on breast CT data: A patient-based characterization of the breast parenchyma. <i>Medical Physics</i> , 2021, 48, 1436-1447.	1.6	13
12	Computer-aided diagnosis of masses in breast computed tomography imaging: deep learning model with combined handcrafted and convolutional radiomic features. <i>Journal of Medical Imaging</i> , 2021, 8, 024501.	0.8	5
13	Deep learning-based reconstruction may improve non-contrast cerebral CT imaging compared to other current reconstruction algorithms. <i>European Radiology</i> , 2021, 31, 5498-5506.	2.3	37
14	Impact of artificial intelligence support on accuracy and reading time in breast tomosynthesis image interpretation: a multi-reader multi-case study. <i>European Radiology</i> , 2021, 31, 8682-8691.	2.3	37
15	Comparison of simultaneous multi-slice single-shot DWI to readout-segmented DWI for evaluation of breast lesions at 3T MRI. <i>European Journal of Radiology</i> , 2021, 138, 109626.	1.2	9
16	Validation of a mammographic image quality modification algorithm using 3D-printed breast phantoms. <i>Journal of Medical Imaging</i> , 2021, 8, 033502.	0.8	3
17	Validation of a candidate instrument to assess image quality in digital mammography using ROC analysis. <i>European Journal of Radiology</i> , 2021, 139, 109686.	1.2	5
18	Deep learning reconstruction of digital breast tomosynthesis images for accurate breast density and patient-specific radiation dose estimation. <i>Medical Image Analysis</i> , 2021, 71, 102061.	7.0	19

#	ARTICLE	IF	CITATIONS
19	Visualization of the Nipple in Profile: Does It Really Affect Selected Outcomes in Organized Mammographic Screening?. Journal of Breast Imaging, 2021, 3, 427-437.	0.5	4
20	Evidence for sequential reading effects in screening mammography. Journal of Vision, 2021, 21, 2212.	0.1	0
21	Impact of Artificial Intelligence Decision Support Using Deep Learning on Breast Cancer Screening Interpretation with Single-View Wide-Angle Digital Breast Tomosynthesis. Radiology, 2021, 300, 529-536.	3.6	27
22	Diffusion weighted imaging for evaluation of breast lesions: Comparison between high b-value single-shot and routine readout-segmented sequences at 3ÅT. Magnetic Resonance Imaging, 2021, 84, 35-40.	1.0	3
23	Pulmonary nodule enhancement in subtraction CT and dual-energy CT: A comparison study. European Journal of Radiology, 2021, 134, 109443.	1.2	2
24	Flat-panel conebeam CT in the clinic: history and current state. Journal of Medical Imaging, 2021, 8, 052115.	0.8	7
25	The regression detectability index RDI for mammography images of breast phantoms with calcification-like objects and anatomical background. Physics in Medicine and Biology, 2021, 66, .	1.6	2
26	New abstract guidelines for <i>Medical Physics</i>. Medical Physics, 2021, 48, 5583-5583.	1.6	0
27	Stand-alone artificial intelligence - The future of breast cancer screening?. Breast, 2020, 49, 254-260.	0.9	47
28	Iodine quantification in limited angle tomography. Medical Physics, 2020, 47, 4906-4916.	1.6	0
29	Digital Breast Tomosynthesis Screening: Better But Still Not Good Enough for All Women. Radiology, 2020, 297, 532-533.	3.6	0
30	Multi-Scale deep learning framework for cochlea localization, segmentation and analysis on clinical ultra-high-resolution CT images. Computer Methods and Programs in Biomedicine, 2020, 191, 105387.	2.6	41
31	Physical evaluation of an ultra-high-resolution CT scanner. European Radiology, 2020, 30, 2552-2560.	2.3	53
32	Reliability of MRI tumor size measurements for minimal invasive treatment selection in small breast cancers. European Journal of Surgical Oncology, 2020, 46, 1463-1470.	0.5	4
33	Deep learning-based segmentation of breast masses in dedicated breast CT imaging: Radiomic feature stability between radiologists and artificial intelligence. Computers in Biology and Medicine, 2020, 118, 103629.	3.9	48
34	Mammography dose estimates do not reflect any specific patient's breast dose. European Journal of Radiology, 2020, 131, 109216.	1.2	2
35	Measurement of the useful field of view for single slices of different imaging modalities and targets. Journal of Medical Imaging, 2020, 7, 1.	0.8	10
36	Realistic compressed breast phantoms for medical physics applications. , 2020, , .		9

#	ARTICLE	IF	CITATIONS
37	Monte Carlo dose evaluation of different fibroglandular tissue distribution in breast imaging. , 2020, , .		3
38	Towards 4D dedicated breast CT perfusion imaging of cancer: development and validation of computer simulated images. Physics in Medicine and Biology, 2019, 64, 245004.	1.6	9
39	A systematic review on the use of the breast lesion excision system in breast disease. Insights Into Imaging, 2019, 10, 49.	1.6	5
40	Iodine Maps from Subtraction CT or Dual-Energy CT to Detect Pulmonary Emboli with CT Angiography: A Multiple-Observer Study. Radiology, 2019, 292, 197-205.	3.6	33
41	Can we reduce the workload of mammographic screening by automatic identification of normal exams with artificial intelligence? A feasibility study. European Radiology, 2019, 29, 4825-4832.	2.3	129
42	Accuracy of registration algorithms in subtraction <scp>CT</scp> of the lungs: A digital phantom study. Medical Physics, 2019, 46, 2264-2274.	1.6	5
43	Stand-Alone Artificial Intelligence for Breast Cancer Detection in Mammography: Comparison With 101 Radiologists. Journal of the National Cancer Institute, 2019, 111, 916-922.	3.0	372
44	Image Quality of Iodine Maps for Pulmonary Embolism: A Comparison of Subtraction CT and Dual-Energy CT. American Journal of Roentgenology, 2019, 212, 1253-1259.	1.0	6
45	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.	1.6	24
46	Can a channelized Hotelling observer assess image quality in acquired mammographic images of an anthropomorphic breast phantom including image processing?. Medical Physics, 2019, 46, 714-725.	1.6	6
47	Comparison of two-view digital breast tomosynthesis to three-view digital mammography in a simulated screening setting. Acta Radiologica, 2019, 60, 1094-1101.	0.5	2
48	Detection of Breast Cancer with Mammography: Effect of an Artificial Intelligence Support System. Radiology, 2019, 290, 305-314.	3.6	347
49	Monte Carlo study on optimal breast voxel resolution for dosimetry estimates in digital breast tomosynthesis. Physics in Medicine and Biology, 2019, 64, 015003.	1.6	6
50	Imaging of pulmonary perfusion using subtraction CT angiography is feasible in clinical practice. European Radiology, 2019, 29, 1408-1414.	2.3	23
51	Validation of a method to simulate the acquisition of mammographic images with different techniques. , 2019, , .		8
52	Patient evaluation of breast shape-corrected tomosynthesis reconstruction. , 2019, , .		3
53	New difference of Gaussian channel-sets for the channelized Hotelling observer?. , 2019, , .		1
54	Breast parenchyma analysis and classification for breast masses detection using texture feature descriptors and neural networks in dedicated breast CT images. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
55	Optimization of the difference-of-Gaussian channel sets for the channelized Hotelling observer. <i>Journal of Medical Imaging</i> , 2019, 6, 1.	0.8	0
56	An unsupervised automatic segmentation algorithm for breast tissue classification of dedicated breast computed tomography images. <i>Medical Physics</i> , 2018, 45, 2542-2559.	1.6	27
57	Internal breast dosimetry in mammography: Experimental methods and Monte Carlo validation with a monoenergetic x-ray beam. <i>Medical Physics</i> , 2018, 45, 1724-1737.	1.6	14
58	New reconstruction algorithm for digital breast tomosynthesis: better image quality for humans and computers. <i>Acta Radiologica</i> , 2018, 59, 1051-1059.	0.5	26
59	One-view digital breast tomosynthesis as a stand-alone modality for breast cancer detection: do we need more?. <i>European Radiology</i> , 2018, 28, 1938-1948.	2.3	23
60	Homogeneous vs. patient specific breast models for Monte Carlo evaluation of mean glandular dose in mammography. <i>Physica Medica</i> , 2018, 51, 56-63.	0.4	24
61	A model observer study using acquired mammographic images of an anthropomorphic breast phantom. <i>Medical Physics</i> , 2018, 45, 655-665.	1.6	15
62	Progression of Medial Arterial Calcification in CKD. <i>Kidney International Reports</i> , 2018, 3, 1328-1335.	0.4	28
63	Comparison of breast cancer detection and depiction between planar and rotating synthetic mammography generated from breast tomosynthesis. <i>European Journal of Radiology</i> , 2018, 108, 78-83.	1.2	3
64	Development of 3D patient-based super-resolution digital breast phantoms using machine learning. <i>Physics in Medicine and Biology</i> , 2018, 63, 225017.	1.6	11
65	Comparing dual energy CT and subtraction CT on a phantom: which one provides the best contrast in iodine maps for sub-centimetre details?. <i>European Radiology</i> , 2018, 28, 5051-5059.	2.3	18
66	RECORDS: improved Reporting of monte Carlo RaDiation transport Studies. <i>International Journal of Radiation Oncology Biology Physics</i> , 2018, 101, 792-793.	0.4	0
67	Internal breast dosimetry in mammography: Monte Carlo validation in homogeneous and anthropomorphic breast phantoms with a clinical mammography system. <i>Medical Physics</i> , 2018, 45, 3950-3961.	1.6	13
68	Patient-based 4D digital breast phantom for perfusion contrast-enhanced breast CT imaging. <i>Medical Physics</i> , 2018, 45, 4448-4460.	1.6	9
69	Monte Carlo evaluation of glandular dose in cone-beam X-ray computed tomography dedicated to the breast: Homogeneous and heterogeneous breast models. <i>Physica Medica</i> , 2018, 51, 99-107.	0.4	21
70	RECORDS: improved Reporting of monte Carlo RaDiation transport Studies: Report of the AAPM Research Committee Task Group 268. <i>Medical Physics</i> , 2018, 45, e1-e5.	1.6	178
71	Signal template generation from acquired images for model observer-based image quality analysis in mammography. <i>Journal of Medical Imaging</i> , 2018, 5, 1.	0.8	1
72	Automatic estimation of glandular tissue loss due to limited reconstruction voxel size in tomographic images of the breast. , 2018, , .		1

#	ARTICLE	IF	CITATIONS
73	Dose reduction in breast CT by spectrum switching. , 2018, , .		2
74	Improvements of an objective model of compressed breasts undergoing mammography: Generation and characterization of breast shapes. Medical Physics, 2017, 44, 2161-2172.	1.6	8
75	A Monte Carlo model for mean glandular dose evaluation in spot compression mammography. Medical Physics, 2017, 44, 3848-3860.	1.6	24
76	Can Breast Compression Be Reduced in Digital Mammography and Breast Tomosynthesis?. American Journal of Roentgenology, 2017, 209, W322-W332.	1.0	20
77	The compressed breast during mammography and breast tomosynthesis: <i>in vivo</i> shape characterization and modeling. Physics in Medicine and Biology, 2017, 62, 6920-6937.	1.6	20
78	Influence of breast compression pressure on the performance of population-based mammography screening. Breast Cancer Research, 2017, 19, 126.	2.2	39
79	Signal template generation from acquired mammographic images for the non-prewhitening model observer with eye-filter. , 2017, , .		5
80	Dosimetry in x-ray-based breast imaging. Physics in Medicine and Biology, 2016, 61, R271-R304.	1.6	69
81	X-ray scatter correction method for dedicated breast computed tomography: improvements and initial patient testing. Physics in Medicine and Biology, 2016, 61, 1116-1135.	1.6	5
82	A minimum spanning forest based classification method for dedicated breast CT images. Medical Physics, 2015, 42, 6190-6202.	1.6	3
83	Review of radiation dose estimates in digital breast tomosynthesis relative to those in two-view full-field digital mammography. Breast, 2015, 24, 93-99.	0.9	186
84	The DICOM Radiation Dose Structured Report: What It Is and What It Is Not. Journal of the American College of Radiology, 2015, 12, 712-713.	0.9	11
85	Monte Carlo reference data sets for imaging research: Executive summary of the report of AAPM Research Committee Task Group 195. Medical Physics, 2015, 42, 5679-5691.	1.6	76
86	Breast tissue classification in digital tomosynthesis images based on global gradient minimization and texture features. Proceedings of SPIE, 2014, 9034, 90341V.	0.8	14
87	X-ray scatter correction in breast tomosynthesis with a precomputed scatter map library. Medical Physics, 2014, 41, 031912.	1.6	15
88	Radiation dosimetry in digital breast tomosynthesis: Report of AAPM Tomosynthesis Subcommittee Task Group 223. Medical Physics, 2014, 41, 091501.	1.6	43
89	Teaching Radiologic Physics to Diagnostic Radiology Residents: How We Do It. Journal of the American College of Radiology, 2014, 11, 1093-1094.	0.9	0
90	A review of breast tomosynthesis. Part I. The image acquisition process. Medical Physics, 2013, 40, 014301.	1.6	326

#	ARTICLE	IF	CITATIONS
91	A review of breast tomosynthesis. Part II. Image reconstruction, processing and analysis, and advanced applications. <i>Medical Physics</i> , 2013, 40, 014302.	1.6	161
92	Stereoscopic Digital Mammography: Improved Specificity and Reduced Rate of Recall in a Prospective Clinical Trial. <i>Radiology</i> , 2013, 266, 81-88.	3.6	36
93	Iterative Breast Tomosynthesis Image Reconstruction. <i>SIAM Journal of Scientific Computing</i> , 2013, 35, S192-S208.	1.3	7
94	Power spectrum analysis of the x-ray scatter signal in mammography and breast tomosynthesis projections. <i>Medical Physics</i> , 2013, 40, 101905.	1.6	13
95	Objective models of compressed breast shapes undergoing mammography. <i>Medical Physics</i> , 2013, 40, 031902.	1.6	9
96	Clinical Digital Breast Tomosynthesis System: Dosimetric Characterization. <i>Radiology</i> , 2012, 263, 35-42.	3.6	140
97	Cupping artifact correction and automated classification for high-resolution dedicated breast CT images. <i>Medical Physics</i> , 2012, 39, 6397-6406.	1.6	49
98	Mammography and the Risk of Thyroid Cancer. <i>American Journal of Roentgenology</i> , 2012, 198, 705-707.	1.0	21
99	X-ray scatter correction method for dedicated breast computed tomography. <i>Medical Physics</i> , 2012, 39, 2896-2903.	1.6	29
100	BreastSimulator: A software platform for breast x-ray imaging research. <i>Journal of Biomedical Graphics and Computing</i> , 2012, 2, .	0.2	13
101	Characterization of the homogeneous tissue mixture approximation in breast imaging dosimetry. <i>Medical Physics</i> , 2012, 39, 5050-5059.	1.6	68
102	A software-based x-ray scatter correction method for breast tomosynthesis. <i>Medical Physics</i> , 2011, 38, 6643-6653.	1.6	20
103	Automatic tissue classification for high-resolution breast CT images based on bilateral filtering. , 2011, 7962, 79623H.		21
104	Numerical Algorithms for Polyenergetic Digital Breast Tomosynthesis Reconstruction. <i>SIAM Journal on Imaging Sciences</i> , 2010, 3, 133-152.	1.3	25
105	Dosimetric characterization of a dedicated breast computed tomography clinical prototype. <i>Medical Physics</i> , 2010, 37, 4110-4120.	1.6	85
106	Imaging Nanoprobe for Prediction of Outcome of Nanoparticle Chemotherapy by Using Mammography. <i>Radiology</i> , 2009, 250, 398-406.	3.6	96
107	Optimization of the acquisition geometry in digital tomosynthesis of the breast. <i>Medical Physics</i> , 2009, 36, 1199-1207.	1.6	117
108	Tumor Vascular Permeability to a Nanoprobe Correlates to Tumor-Specific Expression Levels of Angiogenic Markers. <i>PLoS ONE</i> , 2009, 4, e5843.	1.1	64

#	ARTICLE	IF	CITATIONS
109	Multifunctional nanocarriers for mammographic quantification of tumor dosing and prognosis of breast cancer therapy. <i>Biomaterials</i> , 2008, 29, 4815-4822.	5.7	58
110	Monte Carlo and Phantom Study of the Radiation Dose to the Body from Dedicated CT of the Breast. <i>Radiology</i> , 2008, 247, 98-105.	3.6	23
111	Radiation Dose to Organs and Tissues from Mammography: Monte Carlo and Phantom Study. <i>Radiology</i> , 2008, 246, 434-443.	3.6	78
112	Glandular radiation dose in tomosynthesis of the breast using tungsten targets. <i>Journal of Applied Clinical Medical Physics</i> , 2008, 9, 161-171.	0.8	27
113	Detection of Simulated Microcalcifications in a Phantom with Digital Mammography: Effect of Pixel Size. <i>Radiology</i> , 2007, 244, 130-137.	3.6	19
114	Scatter radiation in digital tomosynthesis of the breast. <i>Medical Physics</i> , 2007, 34, 564-576.	1.6	76
115	Computation of the glandular radiation dose in digital tomosynthesis of the breast. <i>Medical Physics</i> , 2006, 34, 221-232.	1.6	124
116	Theoretical analysis of high-resolution digital mammography. <i>Physics in Medicine and Biology</i> , 2006, 51, 3041-3055.	1.6	16