

# Alistair Mackenzie

## List of Publications by Year in descending order

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Version: 2024-02-01

82  
papers

1,173  
citations

394286

19  
h-index

414303

32  
g-index

84  
all docs

84  
docs citations

84  
times ranked

533  
citing authors

#	ARTICLE	IF	CITATIONS
1	Virtual clinical trial to compare cancer detection using combinations of 2D mammography, digital breast tomosynthesis and synthetic 2D imaging. <i>European Radiology</i> , 2022, 32, 806-814.	2.3	10
2	The relationship between age of digital mammography systems and number of reported faults and downtime. <i>Physica Medica</i> , 2022, 98, 113-121.	0.4	3
3	Development of an algorithm to convert mammographic images to appear as if acquired with different technique factors. <i>Journal of Medical Imaging</i> , 2022, 9, .	0.8	0
4	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
5	How does image quality affect radiologists's perceived ability for image interpretation and lesion detection in digital mammography?. <i>European Radiology</i> , 2021, 31, 5335-5343.	2.3	9
6	OPTIMAM Mammography Image Database: A Large-Scale Resource of Mammography Images and Clinical Data. <i>Radiology: Artificial Intelligence</i> , 2021, 3, e200103.	3.0	65
7	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
8	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
9	Effect of glandularity on the detection of simulated cancers in planar, tomosynthesis, and synthetic 2D imaging of the breast using a hybrid virtual clinical trial. <i>Medical Physics</i> , 2021, 48, 6859-6868.	1.6	4
10	Quantitative Image Quality Metrics of the Low-Dose 2D/3D Slot Scanner Compared to Two Conventional Digital Radiography X-ray Imaging Systems. <i>Diagnostics</i> , 2021, 11, 1699.	1.3	3
11	Visual Evaluation of Image Quality of a Low Dose 2D/3D Slot Scanner Imaging System Compared to Two Conventional Digital Radiography X-ray Imaging Systems. <i>Diagnostics</i> , 2021, 11, 1932.	1.3	4
12	Automatic density prediction in low dose mammography. , 2020, , .		5
13	Mammographic image quality assessment by a contrast-to-noise ratio for clinical images. , 2020, , .		0
14	Methodology for undertaking quality control testing of ghosting in digital breast tomosynthesis systems. , 2020, , .		0
15	The relationship between age of digital mammography systems and number of reported faults and downtime. , 2020, , .		0
16	Historical trends in image quality and mean glandular dose in digital mammography. , 2020, , .		1
17	COMPARISON OF RADIATION EXPOSURE TO THE PATIENT AND CONTRAST DETAIL RESOLUTIONS ACROSS LOW DOSE 2D/3D SLOT SCANNER AND TWO CONVENTIONAL DIGITAL RADIOGRAPHY X-RAY IMAGING SYSTEMS. <i>Radiation Protection Dosimetry</i> , 2019, 185, 252-265.	0.4	4
18	The threshold detectable mass diameter for 2D-mammography and digital breast tomosynthesis. <i>Physica Medica</i> , 2019, 57, 25-32.	0.4	18

#	ARTICLE	IF	CITATIONS
19	An observer study to assess the detection of calcification clusters using 2D mammography, digital breast tomosynthesis, and synthetic 2D imaging. , 2019, , .		2
20	A method to modify mammography images to appear as if acquired using different radiographic factors. , 2019, , .		5
21	Validation of a method to simulate the acquisition of mammographic images with different techniques. , 2019, , .		8
22	Validation of modelling tools for simulating wide-angle DBT systems. , 2019, , .		1
23	Lesion detectability in 2D-mammography and digital breast tomosynthesis using different targets and observers. Physics in Medicine and Biology, 2018, 63, 095014.	1.6	12
24	Comparison of synthetic 2D images with planar and tomosynthesis imaging of the breast using a virtual clinical trial. , 2018, , .		7
25	Validation of noise estimation for a clinical contrast-to-noise ratio for digital mammographic imaging. , 2018, , .		2
26	Breast phantom validation of a mammographic image modification method. , 2018, , .		2
27	Independent images: a need for phantom based image quality assessment using model observers?. , 2018, , .		0
28	The effect of system geometry and dose on the threshold detectable calcification diameter in 2D-mammography and digital breast tomosynthesis. Physics in Medicine and Biology, 2017, 62, 858-877.	1.6	29
29	Using non-specialist observers in 4AFC human observer studies. Proceedings of SPIE, 2017, , .	0.8	3
30	Characterisation of noise and sharpness of images from four digital breast tomosynthesis systems for simulation of images for virtual clinical trials. Physics in Medicine and Biology, 2017, 62, 2376-2397.	1.6	30
31	Civil engineering heritage: country profile "Canada. Proceedings of the ICE - Engineering History and Heritage, 2017, 170, 31-37.	0.1	0
32	Design and validation of realistic breast models for use in multiple alternative forced choice virtual clinical trials. Physics in Medicine and Biology, 2017, 62, 2778-2794.	1.6	37
33	Toward image quality assessment in mammography using model observers: Detection of a calcification-like object. Medical Physics, 2017, 44, 5726-5739.	1.6	14
34	Simulation of images of CDMAM phantom and the estimation of measurement uncertainties of threshold gold thickness. Physica Medica, 2017, 39, 137-146.	0.4	7
35	Detection of Microcalcification Clusters in 2D-Mammography and Digital Breast Tomosynthesis and the Relation to the Standard Method of Measuring Image Quality. IFMBE Proceedings, 2016, , 217-221.	0.2	2
36	Detection of microcalcification clusters by 2D-mammography and narrow and wide angle digital breast tomosynthesis. Proceedings of SPIE, 2016, , .	0.8	2

#	ARTICLE	IF	CITATIONS
37	The relationship between cancer detection in mammography and image quality measurements. <i>Physica Medica</i> , 2016, 32, 568-574.	0.4	32
38	Improving the Quality of Optimisation Studies Undertaken in Mammography and General Radiology Using High Level Blended Teaching. <i>Lecture Notes in Computer Science</i> , 2016, , 75-82.	1.0	0
39	Breast cancer detection rates using four different types of mammography detectors. <i>European Radiology</i> , 2016, 26, 874-883.	2.3	23
40	OPTIMAM Image Simulation Toolbox - Recent Developments and Ongoing Studies. <i>Lecture Notes in Computer Science</i> , 2016, , 668-675.	1.0	4
41	Effect of Dose on the Detection of Micro-Calcification Clusters for Planar and Tomosynthesis Imaging. <i>Lecture Notes in Computer Science</i> , 2016, , 152-159.	1.0	1
42	Virtual clinical trials using inserted pathology in clinical images: investigation of assumptions for local glandularity and noise. <i>Proceedings of SPIE</i> , 2015, , .	0.8	3
43	Performance comparison of breast imaging modalities using a 4AFC human observer study. <i>Proceedings of SPIE</i> , 2015, , .	0.8	6
44	Development and validation of a modelling framework for simulating 2D-mammography and breast tomosynthesis images. <i>Physics in Medicine and Biology</i> , 2014, 59, 4275-4293.	1.6	48
45	The Effect of Image Processing on the Detection of Cancers in Digital Mammography. <i>American Journal of Roentgenology</i> , 2014, 203, 387-393.	1.0	28
46	MedXViewer: an extensible web-enabled software package for medical imaging. <i>Proceedings of SPIE</i> , 2014, , .	0.8	3
47	The oncology medical image database (OMI-DB). , 2014, , .		8
48	Image simulation and a model of noise power spectra across a range of mammographic beam qualities. <i>Medical Physics</i> , 2014, 41, 121901.	1.6	42
49	Using image simulation to test the effect of detector type on breast cancer detection. <i>Proceedings of SPIE</i> , 2014, , .	0.8	3
50	Mammographic Image Database (MIDB) and Associated Web-Enabled Software for Research. <i>Lecture Notes in Computer Science</i> , 2014, , 514-519.	1.0	0
51	Comparison of the x-ray attenuation properties of breast calcifications, aluminium, hydroxyapatite and calcium oxalate. <i>Physics in Medicine and Biology</i> , 2013, 58, N103-N113.	1.6	30
52	Characterisation of a breast tomosynthesis unit to simulate images. , 2013, , .		2
53	Simulation of 3D DLA masses in digital breast tomosynthesis. , 2013, , .		6
54	Validation of simulation of calcifications for observer studies in digital mammography. <i>Physics in Medicine and Biology</i> , 2013, 58, N217-N228.	1.6	15

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55	Effect of image processing version on detection of non-calcification cancers in 2D digital mammography imaging. Proceedings of SPIE, 2013, , .	0.8	2
56	Mammographic calcification cluster detection and threshold gold thickness measurements. Proceedings of SPIE, 2012, , .	0.8	2
57	Conversion of mammographic images to appear with the noise and sharpness characteristics of a different detector and x-ray system. Medical Physics, 2012, 39, 2721-2734.	1.6	54
58	Effect of image quality on calcification detection in digital mammography. Medical Physics, 2012, 39, 3202-3213.	1.6	71
59	A Modelling Framework for Evaluation of 2D-Mammography and Breast Tomosynthesis Systems. Lecture Notes in Computer Science, 2012, , 338-345.	1.0	3
60	Converting One Set of Mammograms to Simulate a Range of Detector Imaging Characteristics for Observer Studies. Lecture Notes in Computer Science, 2012, , 394-401.	1.0	1
61	Validation of a method to convert an image to appear as if acquired using a different digital detector. Proceedings of SPIE, 2011, , .	0.8	3
62	Image resampling effects in mammographic image simulation. Physics in Medicine and Biology, 2011, 56, N275-N286.	1.6	8
63	Quality control measurements for digital x-ray detectors. Physics in Medicine and Biology, 2011, 56, 979-999.	1.6	28
64	Validation of a Simulated Dose Reduction Methodology Using Digital Mammography CDMAM Images and Mastectomy Images. Lecture Notes in Computer Science, 2010, , 78-85.	1.0	2
65	Adapting Clinical Images to Appear with Different Noise and Sharpness to Model a Different Detector. Lecture Notes in Computer Science, 2010, , 319-326.	1.0	0
66	Artifacts Found During Quality Assurance Testing of Computed Radiography and Digital Radiography Detectors. Journal of Digital Imaging, 2009, 22, 383-392.	1.6	8
67	Effective DQE (eDQE) and speed of digital radiographic systems: An experimental methodology. Medical Physics, 2009, 36, 3806-3817.	1.6	59
68	Use of effective detective quantum efficiency to optimise radiographic exposures for chest imaging with computed radiography. , 2009, , .		6
69	Extension of DQE to include scatter, grid, magnification, and focal spot blur: a new experimental technique and metric. , 2009, , .		9
70	Detector or System? Extending the Concept of Detective Quantum Efficiency to Characterize the Performance of Digital Radiographic Imaging Systems. Radiology, 2008, 249, 926-937.	3.6	60
71	Validation of correction methods for the non-linear response of digital radiography systems. British Journal of Radiology, 2008, 81, 341-345.	1.0	17
72	Characterization of noise sources for two generations of computed radiography systems using powder and crystalline photostimulable phosphors. Medical Physics, 2007, 34, 3345-3357.	1.6	49

