# Georgia D Tourassi

### List of Publications by Citations

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154 2,959 27 51 h-index g-index citations papers 184 5.1 5.13 3,532 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
154	Training neural network classifiers for medical decision making: the effects of imbalanced datasets on classification performance. <i>Neural Networks</i> , <b>2008</b> , 21, 427-36	9.1	459
153	Application of the mutual information criterion for feature selection in computer-aided diagnosis. <i>Medical Physics</i> , <b>2001</b> , 28, 2394-402	4.4	150
152	Recent advances in chest radiography. <i>Radiology</i> , <b>2006</b> , 241, 663-83	20.5	143
151	A concentric morphology model for the detection of masses in mammography. <i>IEEE Transactions on Medical Imaging</i> , <b>2007</b> , 26, 880-9	11.7	110
150	Computer-assisted detection of mammographic masses: a template matching scheme based on mutual information. <i>Medical Physics</i> , <b>2003</b> , 30, 2123-30	4.4	99
149	Evaluation of information-theoretic similarity measures for content-based retrieval and detection of masses in mammograms. <i>Medical Physics</i> , <b>2007</b> , 34, 140-50	4.4	85
148	Transforming epidemiology for 21st century medicine and public health. <i>Cancer Epidemiology Biomarkers and Prevention</i> , <b>2013</b> , 22, 508-16	4	83
147	Methodology for generating a 3D computerized breast phantom from empirical data. <i>Medical Physics</i> , <b>2009</b> , 36, 3122-31	4.4	76
146	Deep Learning for Automated Extraction of Primary Sites From Cancer Pathology Reports. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2018</b> , 22, 244-251	7.2	71
145	Self-organizing map for cluster analysis of a breast cancer database. <i>Artificial Intelligence in Medicine</i> , <b>2003</b> , 27, 113-27	7.4	69
144	Hierarchical attention networks for information extraction from cancer pathology reports. <i>Journal of the American Medical Informatics Association: JAMIA</i> , <b>2018</b> , 25, 321-330	8.6	68
143	Evaluation of computer-aided detection and diagnosis systems. <i>Medical Physics</i> , <b>2013</b> , 40, 087001	4.4	68
142	The effect of data sampling on the performance evaluation of artificial neural networks in medical diagnosis. <i>Medical Decision Making</i> , <b>1997</b> , 17, 186-92	2.5	56
141	A study on the computerized fractal analysis of architectural distortion in screening mammograms. <i>Physics in Medicine and Biology</i> , <b>2006</b> , 51, 1299-312	3.8	50
140	Case-based reasoning computer algorithm that uses mammographic findings for breast biopsy decisions. <i>American Journal of Roentgenology</i> , <b>2000</b> , 175, 1347-52	5.4	50
139	LUNGx Challenge for computerized lung nodule classification. <i>Journal of Medical Imaging</i> , <b>2016</b> , 3, 044	<b>50</b> 266	50
138	Investigating the link between radiologistsUgaze, diagnostic decision, and image content. <i>Journal of the American Medical Informatics Association: JAMIA</i> , <b>2013</b> , 20, 1067-75	8.6	45

### (2008-2003)

137	Decision tree classification of proteins identified by mass spectrometry of blood serum samples from people with and without lung cancer. <i>Proteomics</i> , <b>2003</b> , 3, 1678-9	4.8	41	
136	Mutual information-based template matching scheme for detection of breast masses: from mammography to digital breast tomosynthesis. <i>Journal of Biomedical Informatics</i> , <b>2011</b> , 44, 815-23	10.2	38	
135	Use of Natural Language Processing to Extract Clinical Cancer Phenotypes from Electronic Medical Records. <i>Cancer Research</i> , <b>2019</b> , 79, 5463-5470	10.1	33	
134	Automated breast mass detection in 3D reconstructed tomosynthesis volumes: a featureless approach. <i>Medical Physics</i> , <b>2008</b> , 35, 3626-36	4.4	33	
133	Introduction to neutron stimulated emission computed tomography. <i>Physics in Medicine and Biology</i> , <b>2006</b> , 51, 3375-90	3.8	33	
132	LUNGx Challenge for computerized lung nodule classification: reflections and lessons learned. <i>Journal of Medical Imaging</i> , <b>2015</b> , 2, 020103	2.6	32	
131	Automatic extraction of cancer registry reportable information from free-text pathology reports using multitask convolutional neural networks. <i>Journal of the American Medical Informatics Association: JAMIA</i> , <b>2020</b> , 27, 89-98	8.6	29	
130	Predicting diagnostic error in radiology via eye-tracking and image analytics: preliminary investigation in mammography. <i>Medical Physics</i> , <b>2013</b> , 40, 101906	4.4	28	
129	Impact of missing data in evaluating artificial neural networks trained on complete data. <i>Computers in Biology and Medicine</i> , <b>2006</b> , 36, 516-25	7	28	
128	Information-theoretic CAD system in mammography: entropy-based indexing for computational efficiency and robust performance. <i>Medical Physics</i> , <b>2007</b> , 34, 3193-204	4.4	26	
127	Hierarchical Convolutional Attention Networks for Text Classification 2018,		26	
126	A neural network approach to breast cancer diagnosis as a constraint satisfaction problem. <i>Medical Physics</i> , <b>2001</b> , 28, 804-11	4.4	24	
125	Decision optimization of case-based computer-aided decision systems using genetic algorithms with application to mammography. <i>Physics in Medicine and Biology</i> , <b>2008</b> , 53, 895-908	3.8	23	
124	A user-oriented web crawler for selectively acquiring online content in e-health research. <i>Bioinformatics</i> , <b>2014</b> , 30, 104-14	7.2	22	
123	Individualized computer-aided education in mammography based on user modeling: concept and preliminary experiments. <i>Medical Physics</i> , <b>2010</b> , 37, 1152-60	4.4	22	
122	The effect of class imbalance on case selection for case-based classifiers: an empirical study in the context of medical decision support. <i>Neural Networks</i> , <b>2012</b> , 25, 141-5	9.1	21	
121	An artificial neural network for lesion detection on single-photon emission computed tomographic images. <i>Investigative Radiology</i> , <b>1992</b> , 27, 667-72	10.1	19	
120	Evaluating the effect of image preprocessing on an information-theoretic CAD system in mammography. <i>Academic Radiology</i> , <b>2008</b> , 15, 626-34	4.3	18	

119	Neutron Stimulated Emission Computed Tomography for Diagnosis of Breast Cancer. <i>IEEE Transactions on Nuclear Science</i> , <b>2008</b> , 55, 501-509	1.7	17
118	Breast cancer detection using neutron stimulated emission computed tomography: prominent elements and dose requirements. <i>Medical Physics</i> , <b>2007</b> , 34, 3866-71	4.4	16
117	Similarity metrics based on nonadditive entropies for 2D-3D multimodal biomedical image registration <b>2003</b> ,		16
116	Artificial neural networks for single photon emission computed tomography. A study of cold lesion detection and localization. <i>Investigative Radiology</i> , <b>1993</b> , 28, 671-7	10.1	16
115	Selection of examples in case-based computer-aided decision systems. <i>Physics in Medicine and Biology</i> , <b>2008</b> , 53, 6079-96	3.8	15
114	Limitations of Transformers on Clinical Text Classification. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2021</b> , 25, 3596-3607	7.2	15
113	Analysis of Online Social Networks to Understand Information Sharing Behaviors Through Social Cognitive Theory <b>2014</b> , 2014,		14
112	Identifying error-making patterns in assessment of mammographic BI-RADS descriptors among radiology residents using statistical pattern recognition. <i>Academic Radiology</i> , <b>2012</b> , 19, 865-71	4.3	14
111	Classifying cancer pathology reports with hierarchical self-attention networks. <i>Artificial Intelligence in Medicine</i> , <b>2019</b> , 101, 101726	7.4	13
110	Exploring the potential of context-sensitive CADe in screening mammography. <i>Medical Physics</i> , <b>2010</b> , 37, 5728-36	4.4	13
109	. IEEE Transactions on Nuclear Science, <b>2007</b> , 54, 1498-1505	1.7	13
108	General ultrasound speckle models in determining scatterer density <b>2002</b> , 4687, 285		13
107	Multifractal texture analysis of perfusion lung scans as a potential diagnostic tool for acute pulmonary embolism. <i>Computers in Biology and Medicine</i> , <b>2001</b> , 31, 15-25	7	11
106	Artificial intelligence in cancer research, diagnosis and therapy. <i>Nature Reviews Cancer</i> , <b>2021</b> , 21, 747-7	<b>52</b> <sub>1.3</sub>	11
105	AI Meets Exascale Computing: Advancing Cancer Research With Large-Scale High Performance Computing. <i>Frontiers in Oncology</i> , <b>2019</b> , 9, 984	5.3	10
104	Perceptron error surface analysis: a case study in breast cancer diagnosis. <i>Computers in Biology and Medicine</i> , <b>2002</b> , 32, 99-109	7	10
103	Detecting Rumors Through Modeling Information Propagation Networks in a Social Media Environment. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 9021, 121-130	0.9	10
102	Neutron-stimulated emission computed tomography of a multi-element phantom. <i>Physics in Medicine and Biology</i> , <b>2008</b> , 53, 2313-26	3.8	9

## (2003-2016)

101	A novel web informatics approach for automated surveillance of cancer mortality trends. <i>Journal of Biomedical Informatics</i> , <b>2016</b> , 61, 110-8	10.2	9
100	Fractal analysis of visual search activity for mass detection during mammographic screening. <i>Medical Physics</i> , <b>2017</b> , 44, 832-846	4.4	8
99	Gaze as a biometric <b>2014</b> ,		8
98	Neutron stimulated emission computed tomography: Background corrections. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2007</b> , 254, 329-336	1.2	8
97	Neutron stimulated emission computed tomography of stable isotopes 2004,		8
96	Estimation of generalized entropies with sample spacing. <i>Pattern Analysis and Applications</i> , <b>2005</b> , 8, 95-	1 <u>0</u> .3	8
95	Fractal texture analysis of perfusion lung scans. <i>Journal of Biomedical Informatics</i> , <b>2000</b> , 33, 161-71		8
94	Lesion size quantification in SPECT using an artificial neural network classification approach. <i>Journal of Biomedical Informatics</i> , <b>1995</b> , 28, 257-70		8
93	. IEEE Transactions on Nuclear Science, <b>1991</b> , 38, 780-783	1.7	8
92	Knowledge Graph-Enabled Cancer Data Analytics. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2020</b> , 24, 1952-1967	7.2	7
91	Investigating the association of eye gaze pattern and diagnostic error in mammography 2013,		7
90	Reliability analysis framework for computer-assisted medical decision systems. <i>Medical Physics</i> , <b>2007</b> , 34, 763-72	4.4	7
89	. IEEE Transactions on Nuclear Science, <b>1991</b> , 38, 776-779	1.7	7
88	Scalable deep text comprehension for Cancer surveillance on high-performance computing. <i>BMC Bioinformatics</i> , <b>2018</b> , 19, 488	3.6	7
87	Privacy-Preserving Deep Learning NLP Models for Cancer Registries. <i>IEEE Transactions on Emerging Topics in Computing</i> , <b>2020</b> , 1-1	4.1	6
86	Coarse-to-fine multi-task training of convolutional neural networks for automated information extraction from cancer pathology reports <b>2018</b> ,		6
85	Bilateral Breast Volume Asymmetry in Screening Mammograms as a Potential Marker of Breast Cancer: Preliminary Experience <b>2007</b> ,		6
84	Content-based image retrieval as a computer aid for the detection of mammographic masses <b>2003</b> , 5032, 590		6

83	Using case-level context to classify cancer pathology reports. <i>PLoS ONE</i> , <b>2020</b> , 15, e0232840	3.7	5
82	Energy efficient stochastic-based deep spiking neural networks for sparse datasets 2017,		5
81	An adaptive incremental approach to constructing ensemble classifiers: application in an information-theoretic computer-aided decision system for detection of masses in mammograms. <i>Medical Physics</i> , <b>2009</b> , 36, 2976-84	4.4	5
80	Exploring the potential of collaborative filtering for user-adaptive mammography education 2011,		5
79	Comparative analysis of instance selection algorithms for instance-based classifiers in the context of medical decision support. <i>Physics in Medicine and Biology</i> , <b>2011</b> , 56, 473-89	3.8	5
78	GEANT4 simulation of NSECT for detection of iron overload in the liver 2008,		5
77	Near-Field High-Energy Spectroscopic Gamma Imaging Using a Rotation Modulation Collimator. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2008</b> , 266, 4938-47	1.2	5
76	Data mining in proteomic mass spectrometry. Clinical Proteomics, 2006, 2, 13-32	5	5
75	. IEEE Transactions on Nuclear Science, 1991, 38, 748-748	1.7	5
74	Class imbalance in out-of-distribution datasets: Improving the robustness of the TextCNN for the classification of rare cancer types. <i>Journal of Biomedical Informatics</i> , <b>2021</b> , 125, 103957	10.2	5
73	Accelerated training of bootstrap aggregation-based deep information extraction systems from cancer pathology reports. <i>Journal of Biomedical Informatics</i> , <b>2020</b> , 110, 103564	10.2	5
72	Deep active learning for classifying cancer pathology reports. <i>BMC Bioinformatics</i> , <b>2021</b> , 22, 113	3.6	5
71	2018,		5
70	The utility of web mining for epidemiological research: studying the association between parity and cancer risk. <i>Journal of the American Medical Informatics Association: JAMIA</i> , <b>2016</b> , 23, 588-95	8.6	4
69	Point/counterpoint. Molecular breast imaging will soon replace x-ray mammography as the imaging modality of choice for women at high risk with dense breasts. <i>Medical Physics</i> , <b>2009</b> , 36, 1463-6	4.4	4
68	Non-Invasive Estimation of Potassium (39K) in Bovine Liver Using Neutron Stimulated Emission Computed Tomography (NSECT) <b>2006</b> ,		4
67	Impact of Low Class Prevalence on the Performance Evaluation of Neural Network Based Classifiers: Experimental Study in the Context of Computer-Assisted Medical Diagnosis. <i>Neural Networks (IJCNN), International Joint Conference on</i> , <b>2007</b> ,		4
66	Neutron Spectroscopy of Mouse Using Neutron Stimulated Emission Computed Tomography (NSECT) <b>2006</b> ,		4

65	Performance evaluation of an information-theoretic CAD scheme for the detection of mammographic architectural distortion <b>2004</b> ,	4
64	COVID-19 Evidence Accelerator: A parallel analysis to describe the use of Hydroxychloroquine with or without Azithromycin among hospitalized COVID-19 patients. <i>PLoS ONE</i> , <b>2021</b> , 16, e0248128	4
63	Pharmacoepidemiology, Machine Learning, and COVID-19: An Intent-to-Treat Analysis of Hydroxychloroquine, With or Without Azithromycin, and COVID-19 Outcomes Among Hospitalized 3.8 US Veterans. <i>American Journal of Epidemiology</i> , <b>2021</b> , 190, 2405-2419	4
62	Evaluating classifiers: Relation between area under the receiver operator characteristic curve and overall accuracy <b>2009</b> ,	3
61	Effect of ROI size on the performance of an information-theoretic CAD system in mammography: multi-size fusion analysis <b>2008</b> ,	3
60	Neutron Stimulated Emission Computed Tomography (NSECT) for Early Detection of Breast Cancer <b>2006</b> ,	3
59	Particle swarm optimization of neural network CAD systems with clinically relevant objectives <b>2007</b>	3
58	Computer-assisted diagnosis of mammographic masses using an information-theoretic image retrieval scheme with BIRADs-based relevance feedback <b>2004</b> , 5370, 810	3
57	Knowledge-based detection of mammographic masses: analysis of the impact of database comprehensiveness <b>2005</b> ,	3
56	DNA: directional neighborhood analysis for detection of breast masses in screening mammograms <b>2005</b> ,	3
55	Computer-Aided Diagnosis in Breast Imaging: Where Do We Go after Detection?871-900	3
54	Model-based Hyperparameter Optimization of Convolutional Neural Networks for Information Extraction from Cancer Pathology Reports on HPC <b>2019</b> ,	3
53	Predicting Lung Cancer Incidence from Air Pollution Exposures Using Shapelet-based Time Series Analysis. <i>IEEE-EMBS International Conference on Biomedical and Health Informatics</i> , <b>2016</b> , 2016, 565-568 1.9	2
52	Comparative analysis of data collection methods for individualized modeling of radiologists Wisual similarity judgments in mammograms. <i>Academic Radiology</i> , <b>2013</b> , 20, 1371-80	2
51	Personalized modeling of human gaze: Exploratory investigation on mammogram readings 2013,	2
50	Automated assessment of bilateral breast volume asymmetry as a breast cancer biomarker during mammographic screening <b>2013</b> ,	2
49	The effect of class imbalance on case selection for case-based classifiers, with emphasis on computer-aided diagnosis systems <b>2009</b> ,	2
48	Database decomposition of a knowledge-based CAD system in mammography: an ensemble approach to improve detection <b>2008</b> ,	2

47	Computer-aided detection of breast masses in tomosynthesis reconstructed volumes using information-theoretic similarity measures <b>2008</b> ,		2
46	Case-base reduction for a computer assisted breast cancer detection system using genetic algorithms <b>2007</b> ,		2
45	Probabilistic framework for reliability analysis of information-theoretic CAD systems in mammography. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2006</b> , 2006, 6113-6		2
44	2006,		2
43	GEANT4 simulation of an NSECT system for iron overload detection 2007,		2
42	Cross-digitizer robustness of a knowledge-based CAD system for mass detection in mammograms <b>2007</b> ,		2
41	Design and Construction of a Prototype Rotation Modulation Collimator for Near-Field High-Energy Spectroscopic Gamma Imaging <b>2006</b> ,		2
40	Cluster analysis of BI-RADS descriptions of biopsy-proven breast lesions <b>2002</b> ,		2
39	Residential Mobility and Lung Cancer Risk: Data-Driven Exploration Using Internet Sources. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 9021, 464-469	0.9	2
38	Geometry and Gesture-Based Features from Saccadic Eye-Movement as a Biometric in Radiology. Lecture Notes in Computer Science, <b>2017</b> , 123-138	0.9	2
37	Deep Transfer Learning Across Cancer Registries for Information Extraction from Pathology Reports <b>2019</b> ,		2
36	Extraction of Tumor Site from Cancer Pathology Reports using Deep Filters 2019,		2
35	Semi-Supervised Information Extraction for Cancer Pathology Reports 2019,		2
34	Harnessing the Power of Collaboration and Training Within Clinical Data Science to Generate Real-World Evidence in the Era of Precision Oncology. <i>Clinical Pharmacology and Therapeutics</i> , <b>2019</b> , 106, 60-66	6.1	1
33	A cost-effective, case-control study on the association between breast cancer and pregnancy through web mining <b>2013</b> , 2013, 1-4		1
32	Fractal analysis of radiologistsWisual scanning pattern in screening mammography 2015,		1
31	Modeling error in assessment of mammographic image features for improved computer-aided mammography training: initial experience <b>2011</b> ,		1
30	User modeling for improved computer-aided training in radiology: initial experience 2010,		1

#### (2022-2009)

29	A comparative study of database reduction methods for case-based computer-aided detection systems: preliminary results <b>2009</b> ,		1
28	Detection of iron overload through neutron stimulated emission computed tomography: a sensitivity analysis study <b>2009</b> ,		1
27	Perception-driven IT-CADe analysis for the detection of masses in screening mammography: initial investigation <b>2010</b> ,		1
26	Reliability Assessment of Ensemble Classifiers: Application in Mammography. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 366-370	0.9	1
25	Validation of a GEANT4 simulation of neutron stimulated emission computed tomography 2008,		1
24	Significance of MPEG-7 textural features for improved mass detection in mammography. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2006</b> , 2006, 4779-82		1
23	Elemental spectrum of a mouse obtained via neutron stimulation 2007,		1
22	Breast mass detection in tomosynthesis projection images using information-theoretic similarity measures <b>2007</b> ,		1
21	Breast cancer diagnosis using neutron stimulated emission computed tomography: dose and count requirements <b>2006</b> ,		1
20	Rotating slat collimator design for high-energy near-field imaging <b>2006</b> , 6142, 405		1
19	Unsupervised tissue segmentation in screening mammograms for automated breast density assessment <b>2004</b> , 5370, 75		1
18	Automated detection of mammographic masses: preliminary assessment of an information-theoretic CAD scheme for reduction of false positives <b>2005</b> ,		1
17	A novel technique for assessing the case-specific reliability of decisions made by CAD tools 2005,		1
16	Case-based reasoning as a computer aid to diagnosis <b>1999</b> , 3661, 486		1
15	Modeling sequential context effects in diagnostic interpretation of screening mammograms.  Journal of Medical Imaging, <b>2018</b> , 5, 031408	2.6	1
14	Knowledge Transfer across Breast Cancer Screening Modalities: A Pilot Study Using an Information-Theoretic CADe System for Mass Detection. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 292-29	<b>8</b> 9	1
13	Privacy-Preserving Knowledge Transfer with Bootstrap Aggregation of Teacher Ensembles. <i>Lecture Notes in Computer Science</i> , <b>2021</b> , 87-99	).9	1
12	Optimal vocabulary selection approaches for privacy-preserving deep NLP model training for information extraction and cancer epidemiology <i>Cancer Biomarkers</i> , <b>2022</b> , 33, 185-198	.8	1

11	Letter to the Editor: Use of Publicly Available Image Resources. <i>Academic Radiology</i> , <b>2017</b> , 24, 916-917	4.3
10	Investigating the Association Between Sociodemographic Factors and Lung Cancer Risk Using Cyber Informatics. <i>IEEE-EMBS International Conference on Biomedical and Health Informatics</i> , <b>2016</b> , 2016, 557-560	1.9
9	Contribution of Haar wavelets and MPEG-7 textural features for false positive reduction in a CAD system for the detection of masses in mammograms <b>2007</b> , 6514, 41	
8	Confidence-based stratification of CAD recommendations with application to breast cancer detection <b>2006</b> , 6144, 1759	
7	Fast search and localization algorithm based on human visual perception modeling: an application for fast localization of structures in mammograms <b>2003</b> , 5034, 270	
6	Validation of a constraint satisfaction neural network for breast cancer disgnosis: new results from 1030 cases <b>2003</b> , 5032, 207	
5	Use of a constraint satisfaction neural network for breast cancer diagnosis and dynamic scenarios simulation <b>2000</b> , 3979, 46	
4	Computer-aided prediction of breast implant rupture based on mammographic findings <b>1995</b> , 2434, 471	
3	Effect of Similarity Metrics and ROI Sizes in Featureless Computer Aided Detection of Breast Masses in Tomosynthesis. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 286-291	0.9
2	Case-Specific Reliability Assessment for Improved False Positive Reduction with an Information-Theoretic CAD System. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 329-335	0.9
1	Selective Information Extraction Strategies for Cancer Pathology Reports with Convolutional Neural Networks. <i>Proceedings of the International Neural Networks Society</i> , <b>2020</b> , 89-98	0.5