Georgia D Tourassi

List of Publications by Year in Descending Order

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

#	Paper	IF	Citations
154	Optimal vocabulary selection approaches for privacy-preserving deep NLP model training for information extraction and cancer epidemiology.. *Cancer Biomarkers*, **2022**, 33, 185-198	3.8	1
153	Class imbalance in out-of-distribution datasets: Improving the robustness of the TextCNN for the classification of rare cancer types. *Journal of Biomedical Informatics*, **2021**, 125, 103957	10.2	5
152	COVID-19 Evidence Accelerator: A parallel analysis to describe the use of Hydroxychloroquine with or without Azithromycin among hospitalized COVID-19 patients. *PLoS ONE*, **2021**, 16, e0248128	3.7	4
151	Deep active learning for classifying cancer pathology reports. *BMC Bioinformatics*, **2021**, 22, 113	3.6	5
150	Pharmacoepidemiology, Machine Learning, and COVID-19: An Intent-to-Treat Analysis of Hydroxychloroquine, With or Without Azithromycin, and COVID-19 Outcomes Among Hospitalized US Veterans. *American Journal of Epidemiology*, **2021**, 190, 2405-2419	3.8	4
149	Privacy-Preserving Knowledge Transfer with Bootstrap Aggregation of Teacher Ensembles. *Lecture Notes in Computer Science*, **2021**, 87-99	0.9	1
148	Artificial intelligence in cancer research, diagnosis and therapy. *Nature Reviews Cancer*, **2021**, 21, 747-752	21.3	11
147	Limitations of Transformers on Clinical Text Classification. *IEEE Journal of Biomedical and Health Informatics*, **2021**, 25, 3596-3607	7.2	15
146	Knowledge Graph-Enabled Cancer Data Analytics. *IEEE Journal of Biomedical and Health Informatics*, **2020**, 24, 1952-1967	7.2	7
145	Using case-level context to classify cancer pathology reports. *PLoS ONE*, **2020**, 15, e0232840	3.7	5
144	Privacy-Preserving Deep Learning NLP Models for Cancer Registries. *IEEE Transactions on Emerging Topics in Computing*, **2020**, 1-1	4.1	6
143	Automatic extraction of cancer registry reportable information from free-text pathology reports using multitask convolutional neural networks. *Journal of the American Medical Informatics Association: JAMIA*, **2020**, 27, 89-98	8.6	29
142	Accelerated training of bootstrap aggregation-based deep information extraction systems from cancer pathology reports. *Journal of Biomedical Informatics*, **2020**, 110, 103564	10.2	5
141	Selective Information Extraction Strategies for Cancer Pathology Reports with Convolutional Neural Networks. *Proceedings of the International Neural Networks Society*, **2020**, 89-98	0.5	
140	Harnessing the Power of Collaboration and Training Within Clinical Data Science to Generate Real-World Evidence in the Era of Precision Oncology. *Clinical Pharmacology and Therapeutics*, **2019**, 106, 60-66	6.1	1
139	Classifying cancer pathology reports with hierarchical self-attention networks. *Artificial Intelligence in Medicine*, **2019**, 101, 101726	7.4	13
138	Use of Natural Language Processing to Extract Clinical Cancer Phenotypes from Electronic Medical Records. *Cancer Research*, **2019**, 79, 5463-5470	10.1	33

137	AI Meets Exascale Computing: Advancing Cancer Research With Large-Scale High Performance Computing. *Frontiers in Oncology*, **2019**, 9, 984	5.3	10
136	Deep Transfer Learning Across Cancer Registries for Information Extraction from Pathology Reports **2019**,		2
135	Extraction of Tumor Site from Cancer Pathology Reports using Deep Filters **2019**,		2
134	Semi-Supervised Information Extraction for Cancer Pathology Reports **2019**,		2
133	Model-based Hyperparameter Optimization of Convolutional Neural Networks for Information Extraction from Cancer Pathology Reports on HPC **2019**,		3
132	Hierarchical attention networks for information extraction from cancer pathology reports. *Journal of the American Medical Informatics Association: JAMIA*, **2018**, 25, 321-330	8.6	68
131	Coarse-to-fine multi-task training of convolutional neural networks for automated information extraction from cancer pathology reports **2018**,		6
130	Deep Learning for Automated Extraction of Primary Sites From Cancer Pathology Reports. *IEEE Journal of Biomedical and Health Informatics*, **2018**, 22, 244-251	7.2	71
129	Hierarchical Convolutional Attention Networks for Text Classification **2018**,		26
128	Modeling sequential context effects in diagnostic interpretation of screening mammograms. *Journal of Medical Imaging*, **2018**, 5, 031408	2.6	1
127	**2018**,		5
126	Scalable deep text comprehension for Cancer surveillance on high-performance computing. *BMC Bioinformatics*, **2018**, 19, 488	3.6	7
125	Fractal analysis of visual search activity for mass detection during mammographic screening. *Medical Physics*, **2017**, 44, 832-846	4.4	8
124	Letter to the Editor: Use of Publicly Available Image Resources. *Academic Radiology*, **2017**, 24, 916-917	4.3	
123	Energy efficient stochastic-based deep spiking neural networks for sparse datasets **2017**,		5
122	Geometry and Gesture-Based Features from Saccadic Eye-Movement as a Biometric in Radiology. *Lecture Notes in Computer Science*, **2017**, 123-138	0.9	2
121	Investigating the Association Between Sociodemographic Factors and Lung Cancer Risk Using Cyber Informatics. *IEEE-EMBS International Conference on Biomedical and Health Informatics*, **2016**, 2016, 557-560	1.9	
120	Predicting Lung Cancer Incidence from Air Pollution Exposures Using Shapelet-based Time Series Analysis. *IEEE-EMBS International Conference on Biomedical and Health Informatics*, **2016**, 2016, 565-568	1.9	2

119	The utility of web mining for epidemiological research: studying the association between parity and cancer risk. *Journal of the American Medical Informatics Association: JAMIA*, **2016**, 23, 588-95	8.6	4
118	LUNGx Challenge for computerized lung nodule classification. *Journal of Medical Imaging*, **2016**, 3, 044506	2.6	50
117	A novel web informatics approach for automated surveillance of cancer mortality trends. *Journal of Biomedical Informatics*, **2016**, 61, 110-8	10.2	9
116	Fractal analysis of radiologistsUvisual scanning pattern in screening mammography **2015**,		1
115	LUNGx Challenge for computerized lung nodule classification: reflections and lessons learned. *Journal of Medical Imaging*, **2015**, 2, 020103	2.6	32
114	Detecting Rumors Through Modeling Information Propagation Networks in a Social Media Environment. *Lecture Notes in Computer Science*, **2015**, 9021, 121-130	0.9	10
113	Residential Mobility and Lung Cancer Risk: Data-Driven Exploration Using Internet Sources. *Lecture Notes in Computer Science*, **2015**, 9021, 464-469	0.9	2
112	Analysis of Online Social Networks to Understand Information Sharing Behaviors Through Social Cognitive Theory **2014**, 2014,		14
111	A user-oriented web crawler for selectively acquiring online content in e-health research. *Bioinformatics*, **2014**, 30, 104-14	7.2	22
110	Gaze as a biometric **2014**,		8
109	Evaluation of computer-aided detection and diagnosis systems. *Medical Physics*, **2013**, 40, 087001	4.4	68
108	Comparative analysis of data collection methods for individualized modeling of radiologistsUvisual similarity judgments in mammograms. *Academic Radiology*, **2013**, 20, 1371-80	4.3	2
107	Personalized modeling of human gaze: Exploratory investigation on mammogram readings **2013**,		2
106	A cost-effective, case-control study on the association between breast cancer and pregnancy through web mining **2013**, 2013, 1-4		1
105	Predicting diagnostic error in radiology via eye-tracking and image analytics: preliminary investigation in mammography. *Medical Physics*, **2013**, 40, 101906	4.4	28
104	Investigating the link between radiologistsUgaze, diagnostic decision, and image content. *Journal of the American Medical Informatics Association: JAMIA*, **2013**, 20, 1067-75	8.6	45
103	Automated assessment of bilateral breast volume asymmetry as a breast cancer biomarker during mammographic screening **2013**,		2
102	Transforming epidemiology for 21st century medicine and public health. *Cancer Epidemiology Biomarkers and Prevention*, **2013**, 22, 508-16	4	83

101	Investigating the association of eye gaze pattern and diagnostic error in mammography **2013**,		7
100	The effect of class imbalance on case selection for case-based classifiers: an empirical study in the context of medical decision support. *Neural Networks*, **2012**, 25, 141-5	9.1	21
99	Identifying error-making patterns in assessment of mammographic BI-RADS descriptors among radiology residents using statistical pattern recognition. *Academic Radiology*, **2012**, 19, 865-71	4.3	14
98	Modeling error in assessment of mammographic image features for improved computer-aided mammography training: initial experience **2011**,		1
97	Mutual information-based template matching scheme for detection of breast masses: from mammography to digital breast tomosynthesis. *Journal of Biomedical Informatics*, **2011**, 44, 815-23	10.2	38
96	Exploring the potential of collaborative filtering for user-adaptive mammography education **2011**,		5
95	Comparative analysis of instance selection algorithms for instance-based classifiers in the context of medical decision support. *Physics in Medicine and Biology*, **2011**, 56, 473-89	3.8	5
94	Exploring the potential of context-sensitive CADe in screening mammography. *Medical Physics*, **2010**, 37, 5728-36	4.4	13
93	User modeling for improved computer-aided training in radiology: initial experience **2010**,		1
92	Perception-driven IT-CADe analysis for the detection of masses in screening mammography: initial investigation **2010**,		1
91	Individualized computer-aided education in mammography based on user modeling: concept and preliminary experiments. *Medical Physics*, **2010**, 37, 1152-60	4.4	22
90	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. *Medical Physics*, **2009**, 36, 1463-6	4.4	4
89	The effect of class imbalance on case selection for case-based classifiers, with emphasis on computer-aided diagnosis systems **2009**,		2
88	Evaluating classifiers: Relation between area under the receiver operator characteristic curve and overall accuracy **2009**,		3
87	Methodology for generating a 3D computerized breast phantom from empirical data. *Medical Physics*, **2009**, 36, 3122-31	4.4	76
86	An adaptive incremental approach to constructing ensemble classifiers: application in an information-theoretic computer-aided decision system for detection of masses in mammograms. *Medical Physics*, **2009**, 36, 2976-84	4.4	5
85	A comparative study of database reduction methods for case-based computer-aided detection systems: preliminary results **2009**,		1
84	Detection of iron overload through neutron stimulated emission computed tomography: a sensitivity analysis study **2009**,		1

83	Evaluating the effect of image preprocessing on an information-theoretic CAD system in mammography. *Academic Radiology*, **2008**, 15, 626-34	4.3	18
82	Reliability Assessment of Ensemble Classifiers: Application in Mammography. *Lecture Notes in Computer Science*, **2008**, 366-370	0.9	1
81	Neutron Stimulated Emission Computed Tomography for Diagnosis of Breast Cancer. *IEEE Transactions on Nuclear Science*, **2008**, 55, 501-509	1.7	17
80	GEANT4 simulation of NSECT for detection of iron overload in the liver **2008**,		5
79	Database decomposition of a knowledge-based CAD system in mammography: an ensemble approach to improve detection **2008**,		2
78	Computer-aided detection of breast masses in tomosynthesis reconstructed volumes using information-theoretic similarity measures **2008**,		2
77	Validation of a GEANT4 simulation of neutron stimulated emission computed tomography **2008**,		1
76	Selection of examples in case-based computer-aided decision systems. *Physics in Medicine and Biology*, **2008**, 53, 6079-96	3.8	15
75	Neutron-stimulated emission computed tomography of a multi-element phantom. *Physics in Medicine and Biology*, **2008**, 53, 2313-26	3.8	9
74	Decision optimization of case-based computer-aided decision systems using genetic algorithms with application to mammography. *Physics in Medicine and Biology*, **2008**, 53, 895-908	3.8	23
73	Effect of ROI size on the performance of an information-theoretic CAD system in mammography: multi-size fusion analysis **2008**,		3
72	Automated breast mass detection in 3D reconstructed tomosynthesis volumes: a featureless approach. *Medical Physics*, **2008**, 35, 3626-36	4.4	33
71	Training neural network classifiers for medical decision making: the effects of imbalanced datasets on classification performance. *Neural Networks*, **2008**, 21, 427-36	9.1	459
70	Near-Field High-Energy Spectroscopic Gamma Imaging Using a Rotation Modulation Collimator. *Nuclear Instruments & Methods in Physics Research B*, **2008**, 266, 4938-47	1.2	5
69	Effect of Similarity Metrics and ROI Sizes in Featureless Computer Aided Detection of Breast Masses in Tomosynthesis. *Lecture Notes in Computer Science*, **2008**, 286-291	0.9	
68	Case-Specific Reliability Assessment for Improved False Positive Reduction with an Information-Theoretic CAD System. *Lecture Notes in Computer Science*, **2008**, 329-335	0.9	
67	Knowledge Transfer across Breast Cancer Screening Modalities: A Pilot Study Using an Information-Theoretic CADe System for Mass Detection. *Lecture Notes in Computer Science*, **2008**, 292-298	0.9	1
66	Case-base reduction for a computer assisted breast cancer detection system using genetic algorithms **2007**,		2

65	Neutron stimulated emission computed tomography: Background corrections. *Nuclear Instruments & Methods in Physics Research B*, **2007**, 254, 329-336	1.2	8
64	Evaluation of information-theoretic similarity measures for content-based retrieval and detection of masses in mammograms. *Medical Physics*, **2007**, 34, 140-50	4.4	85
63	Impact of Low Class Prevalence on the Performance Evaluation of Neural Network Based Classifiers: Experimental Study in the Context of Computer-Assisted Medical Diagnosis. *Neural Networks (IJCNN), International Joint Conference on*, **2007**,		4
62	Reliability analysis framework for computer-assisted medical decision systems. *Medical Physics*, **2007**, 34, 763-72	4.4	7
61	GEANT4 simulation of an NSECT system for iron overload detection **2007**,		2
60	Information-theoretic CAD system in mammography: entropy-based indexing for computational efficiency and robust performance. *Medical Physics*, **2007**, 34, 3193-204	4.4	26
59	Breast cancer detection using neutron stimulated emission computed tomography: prominent elements and dose requirements. *Medical Physics*, **2007**, 34, 3866-71	4.4	16
58	Contribution of Haar wavelets and MPEG-7 textural features for false positive reduction in a CAD system for the detection of masses in mammograms **2007**, 6514, 41		
57	Particle swarm optimization of neural network CAD systems with clinically relevant objectives **2007** ,		3
56	Elemental spectrum of a mouse obtained via neutron stimulation **2007**,		1
55	Breast mass detection in tomosynthesis projection images using information-theoretic similarity measures **2007**,		1
54	Bilateral Breast Volume Asymmetry in Screening Mammograms as a Potential Marker of Breast Cancer: Preliminary Experience **2007**,		6
53	Cross-digitizer robustness of a knowledge-based CAD system for mass detection in mammograms **2007**,		2
52	A concentric morphology model for the detection of masses in mammography. *IEEE Transactions on Medical Imaging*, **2007**, 26, 880-9	11.7	110
51	. *IEEE Transactions on Nuclear Science*, **2007**, 54, 1498-1505	1.7	13
50	Significance of MPEG-7 textural features for improved mass detection in mammography. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 4779-82		1
49	Introduction to neutron stimulated emission computed tomography. *Physics in Medicine and Biology* , **2006**, 51, 3375-90	3.8	33
48	Recent advances in chest radiography. *Radiology*, **2006**, 241, 663-83	20.5	143

47	A study on the computerized fractal analysis of architectural distortion in screening mammograms. *Physics in Medicine and Biology*, **2006**, 51, 1299-312	3.8	50
46	Probabilistic framework for reliability analysis of information-theoretic CAD systems in mammography. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 6113-6		2
45	Non-Invasive Estimation of Potassium (39K) in Bovine Liver Using Neutron Stimulated Emission Computed Tomography (NSECT) **2006**,		4
44	**2006**,		2
43	Neutron Stimulated Emission Computed Tomography (NSECT) for Early Detection of Breast Cancer **2006**,		3
42	Neutron Spectroscopy of Mouse Using Neutron Stimulated Emission Computed Tomography (NSECT) **2006**,		4
41	Breast cancer diagnosis using neutron stimulated emission computed tomography: dose and count requirements **2006**,		1
40	Design and Construction of a Prototype Rotation Modulation Collimator for Near-Field High-Energy Spectroscopic Gamma Imaging **2006**,		2
39	Rotating slat collimator design for high-energy near-field imaging **2006**, 6142, 405		1
38	Confidence-based stratification of CAD recommendations with application to breast cancer detection **2006**, 6144, 1759		
37	Impact of missing data in evaluating artificial neural networks trained on complete data. *Computers in Biology and Medicine*, **2006**, 36, 516-25	7	28
36	Data mining in proteomic mass spectrometry. *Clinical Proteomics*, **2006**, 2, 13-32	5	5
35	Automated detection of mammographic masses: preliminary assessment of an information-theoretic CAD scheme for reduction of false positives **2005**,		1
34	Knowledge-based detection of mammographic masses: analysis of the impact of database comprehensiveness **2005**,		3
33	A novel technique for assessing the case-specific reliability of decisions made by CAD tools **2005**,		1
32	Estimation of generalized entropies with sample spacing. *Pattern Analysis and Applications*, **2005**, 8, 95-101	1.3	8
31	DNA: directional neighborhood analysis for detection of breast masses in screening mammograms **2005**,		3
30	Computer-assisted diagnosis of mammographic masses using an information-theoretic image retrieval scheme with BIRADs-based relevance feedback **2004**, 5370, 810		3

29	Performance evaluation of an information-theoretic CAD scheme for the detection of mammographic architectural distortion **2004**,		4
28	Unsupervised tissue segmentation in screening mammograms for automated breast density assessment **2004**, 5370, 75		1
27	Neutron stimulated emission computed tomography of stable isotopes **2004**,		8
26	Fast search and localization algorithm based on human visual perception modeling: an application for fast localization of structures in mammograms **2003**, 5034, 270		
25	Similarity metrics based on nonadditive entropies for 2D-3D multimodal biomedical image registration **2003**,		16
24	Validation of a constraint satisfaction neural network for breast cancer disgnosis: new results from 1030 cases **2003**, 5032, 207		
23	Self-organizing map for cluster analysis of a breast cancer database. *Artificial Intelligence in Medicine*, **2003**, 27, 113-27	7.4	69
22	Decision tree classification of proteins identified by mass spectrometry of blood serum samples from people with and without lung cancer. *Proteomics*, **2003**, 3, 1678-9	4.8	41
21	Content-based image retrieval as a computer aid for the detection of mammographic masses **2003**, 5032, 590		6
20	Computer-assisted detection of mammographic masses: a template matching scheme based on mutual information. *Medical Physics*, **2003**, 30, 2123-30	4.4	99
19	Perceptron error surface analysis: a case study in breast cancer diagnosis. *Computers in Biology and Medicine*, **2002**, 32, 99-109	7	10
18	Cluster analysis of BI-RADS descriptions of biopsy-proven breast lesions **2002**,		2
17	General ultrasound speckle models in determining scatterer density **2002**, 4687, 285		13
16	Multifractal texture analysis of perfusion lung scans as a potential diagnostic tool for acute pulmonary embolism. *Computers in Biology and Medicine*, **2001**, 31, 15-25	7	11
15	A neural network approach to breast cancer diagnosis as a constraint satisfaction problem. *Medical Physics*, **2001**, 28, 804-11	4.4	24
14	Application of the mutual information criterion for feature selection in computer-aided diagnosis. *Medical Physics*, **2001**, 28, 2394-402	4.4	150
13	Use of a constraint satisfaction neural network for breast cancer diagnosis and dynamic scenarios simulation **2000**, 3979, 46		
12	Fractal texture analysis of perfusion lung scans. *Journal of Biomedical Informatics*, **2000**, 33, 161-71		8

11	Case-based reasoning computer algorithm that uses mammographic findings for breast biopsy decisions. *American Journal of Roentgenology*, **2000**, 175, 1347-52	5.4	50
10	Case-based reasoning as a computer aid to diagnosis **1999**, 3661, 486		1
9	The effect of data sampling on the performance evaluation of artificial neural networks in medical diagnosis. *Medical Decision Making*, **1997**, 17, 186-92	2.5	56
8	Computer-aided prediction of breast implant rupture based on mammographic findings **1995**, 2434, 471		
7	Lesion size quantification in SPECT using an artificial neural network classification approach. *Journal of Biomedical Informatics*, **1995**, 28, 257-70		8
6	Artificial neural networks for single photon emission computed tomography. A study of cold lesion detection and localization. *Investigative Radiology*, **1993**, 28, 671-7	10.1	16
5	An artificial neural network for lesion detection on single-photon emission computed tomographic images. *Investigative Radiology*, **1992**, 27, 667-72	10.1	19
4	. *IEEE Transactions on Nuclear Science*, **1991**, 38, 776-779	1.7	7
3	. *IEEE Transactions on Nuclear Science*, **1991**, 38, 780-783	1.7	8
2	. *IEEE Transactions on Nuclear Science*, **1991**, 38, 748-748	1.7	5
1	Computer-Aided Diagnosis in Breast Imaging: Where Do We Go after Detection?871-900		3