Sabina Sonia Tangaro

List of Publications by Year
in descending order

112 papers	2,995 citations	201575 27 h-index	197736 49 g-index
118 all docs	118 docs citations	118 times ranked	3747 citing authors

#	ARTICLE	IF	CITATIONS
1	Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: The CADDementia challenge. NeuroImage, 2015, 111, 562-579.	2.1	266
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.	7.0	245
3	Assessment of network module identification across complex diseases. Nature Methods, 2019, 16, 843-852.	9.0	213
4	Complex networks reveal early MRI markers of Parkinson's disease. Medical Image Analysis, 2018, 48, 12-24.	7.0	112
5	Deep learning reveals Alzheimer's disease onset in MCI subjects: Results from an international challenge. Journal of Neuroscience Methods, 2018, 302, 3-9.	1.3	104
6	A completely automated CAD system for mass detection in a large mammographic database. Medical Physics, 2006, 33, 3066-3075.	1.6	92
7	A CAD system for nodule detection in low-dose lung CTs based on region growing and a new active contour model. Medical Physics, 2007, 34, 4901-4910.	1.6	91
8	Mammogram Segmentation by Contour Searching and Mass Lesions Classification With Neural Network. IEEE Transactions on Nuclear Science, 2006, 53, 2827-2833.	1.2	86
9	Integrating longitudinal information in hippocampal volume measurements for the early detection of Alzheimer's disease. NeuroImage, 2016, 125, 834-847.	2.1	76
10	Automatic Lung Segmentation in CT Images with Accurate Handling of the Hilar Region. Journal of Digital Imaging, 2011, 24, 11-27.	1.6	74
11	Crowdsourced estimation of cognitive decline and resilience in Alzheimer's disease. Alzheimer's and Dementia, 2016, 12, 645-653.	0.4	72
12	DTI measurements for Alzheimer's classification. Physics in Medicine and Biology, 2017, 62, 2361-2375.	1.6	57
13	Radiomic Analysis in Contrast-Enhanced Spectral Mammography for Predicting Breast Cancer Histological Outcome. Diagnostics, 2020, 10, 708.	1.3	57
14	Artificial intelligence applications in medical imaging: A review of the medical physics research in Italy. Physica Medica, 2021, 83, 221-241.	0.4	44
15	Multiplex Networks for Early Diagnosis of Alzheimer's Disease. Frontiers in Aging Neuroscience, 2018, 10, 365.	1.7	43
16	Deep Learning and Multiplex Networks for Accurate Modeling of Brain Age. Frontiers in Aging Neuroscience, 2019, 11, 115.	1.7	41
17	Fully Automated Support System for Diagnosis of Breast Cancer in Contrast-Enhanced Spectral Mammography Images. Journal of Clinical Medicine, 2019, 8, 891.	1.0	40
18	Predicting brain age with complex networks: From adolescence to adulthood. NeuroImage, 2021, 225, 117458.	2.1	39

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19	Microcalcification detection in full-field digital mammograms: A fully automated computer-aided system. Physica Medica, 2019, 64, 1-9.	0.4	38
20	Radiomics Analysis on Contrast-Enhanced Spectral Mammography Images for Breast Cancer Diagnosis: A Pilot Study. Entropy, 2019, 21, 1110.	1.1	38
21	Explainable Deep Learning for Personalized Age Prediction With Brain Morphology. Frontiers in Neuroscience, 2021, 15, 674055.	1.4	38
22	Pleural nodule identification in low-dose and thin-slice lung computed tomography. Computers in Biology and Medicine, 2009, 39, 1137-1144.	3.9	36
23	Ensemble Discrete Wavelet Transform and Gray-Level Co-Occurrence Matrix for Microcalcification Cluster Classification in Digital Mammography. Applied Sciences (Switzerland), 2019, 9, 5388.	1.3	34
24	A machine learning approach on multiscale texture analysis for breast microcalcification diagnosis. BMC Bioinformatics, 2020, 21, 91.	1.2	34
25	Automated voxel-by-voxel tissue classification for hippocampal segmentation: Methods and validation. Physica Medica, 2014, 30, 878-887.	0.4	31
26	Hippocampal unified multi-atlas network (HUMAN): protocol and scale validation of a novel segmentation tool. Physics in Medicine and Biology, 2015, 60, 8851-8867.	1.6	31
27	Direct analysis of molybdenum target generated x-ray spectra with a portable device. Medical Physics, 2004, 31, 2763-2770.	1.6	28
28	Alzheimer's disease diagnosis based on the Hippocampal Unified Multi-Atlas Network (HUMAN) algorithm. BioMedical Engineering OnLine, 2018, 17, 6.	1.3	28
29	Multi-Time-Scale Features for Accurate Respiratory Sound Classification. Applied Sciences (Switzerland), 2020, 10, 8606.	1.3	27
30	Communicability disruption in Alzheimer's disease connectivity networks. Journal of Complex Networks, 2019, 7, 83-100.	1.1	26
31	Association between miRNAs expression and cognitive performances of Pediatric Multiple Sclerosis patients: A pilot study. Brain and Behavior, 2019, 9, e01199.	1.0	26
32	Distributed medical images analysis on a Grid infrastructure. Future Generation Computer Systems, 2007, 23, 475-484.	4.9	25
33	Feature Selection Based on Machine Learning in MRIs for Hippocampal Segmentation. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-10.	0.7	25
34	Automated hippocampal segmentation in 3D MRI using random undersampling with boosting algorithm. Pattern Analysis and Applications, 2016, 19, 579-591.	3.1	24
35	A Gradient-Based Approach for Breast DCE-MRI Analysis. BioMed Research International, 2018, 2018, 1-10.	0.9	24
36	Modelling cognitive loads in schizophrenia by means of new functional dynamic indexes. NeuroImage, 2019, 195, 150-164.	2.1	24

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37	Breath Analysis for Early Detection of Malignant Pleural Mesothelioma: Volatile Organic Compounds (VOCs) Determination and Possible Biochemical Pathways. Cancers, 2020, 12, 1262.	1.7	24
38	MAGIC-5: an Italian mammographic database of digitised images for research. Radiologia Medica, 2008, 113, 477-485.	4.7	22
39	A novel approach to brain connectivity reveals early structural changes in Alzheimer's disease. Physiological Measurement, 2018, 39, 074005.	1.2	22
40	A complex network approach reveals a pivotal substructure of genes linked to schizophrenia. PLoS ONE, 2018, 13, e0190110.	1.1	22
41	A Clinical Decision Support System for Predicting Invasive Breast Cancer Recurrence: Preliminary Results. Frontiers in Oncology, 2021, 11, 576007.	1.3	21
42	Machine Learning and DWI Brain Communicability Networks for Alzheimer's Disease Detection. Applied Sciences (Switzerland), 2020, 10, 934.	1.3	20
43	Exploring the Oral Microbiome in Rheumatic Diseases, State of Art and Future Prospective in Personalized Medicine with an AI Approach. Journal of Personalized Medicine, 2021, 11, 625.	1.1	20
44	Shannon entropy approach reveals relevant genes in Alzheimer's disease. PLoS ONE, 2019, 14, e0226190.	1.1	19
45	A fuzzy-based system reveals Alzheimer's Disease onset in subjects with Mild Cognitive Impairment. Physica Medica, 2017, 38, 36-44.	0.4	18
46	Transcriptomic context of <i>DRD1</i> is associated with prefrontal activity and behavior during working memory. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5582-5587.	3.3	18
47	Thalamic connectivity measured with fMRI is associated with a polygenic index predicting thalamo-prefrontal gene co-expression. Brain Structure and Function, 2019, 224, 1331-1344.	1.2	18
48	Machine Learning for Cloud Detection of Globally Distributed Sentinel-2 Images. Remote Sensing, 2020, 12, 2355.	1.8	18
49	Identifying potential gene biomarkers for Parkinson's disease through an information entropy based approach. Physical Biology, 2020, 18, 016003.	0.8	16
50	Alzheimer's disease markers from structural MRI and FDG-PET brain images. European Physical Journal Plus, 2012, 127, 1.	1.2	15
51	Multiple RF classifier for the hippocampus segmentation: Method and validation on EADC-ADNI Harmonized Hippocampal Protocol. Physica Medica, 2015, 31, 1085-1091.	0.4	15
52	A Novel Synchronization-Based Approach for Functional Connectivity Analysis. Complexity, 2017, 2017, 1-12.	0.9	15
53	Multivariate regression analysis of structural MRI connectivity matrices in Alzheimer's disease. PLoS ONE, 2017, 12, e0187281.	1.1	15
54	Territorial bias in university rankings: a complex network approach. Scientific Reports, 2022, 12, 4995.	1.6	15

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55	A theoretical study on phase–contrast mammography with Thomson–scattering x–ray sources. Medical Physics, 2009, 36, 4644-4653.	1.6	14
56	Communicability Characterization of Structural DWI Subcortical Networks in Alzheimer's Disease. Entropy, 2019, 21, 475.	1.1	14
57	Hough transform for clustered microcalcifications detection in full-field digital mammograms. , 2017, , .		14
58	Topological Measurements of DWI Tractography for Alzheimer's Disease Detection. Computational and Mathematical Methods in Medicine, 2017, 2017, 1-10.	0.7	13
59	An equity-oriented rethink of global rankings with complex networks mapping development. Scientific Reports, 2020, 10, 18046.	1.6	13
60	The PERSON project: a serious brain-computer interface game for treatment in cognitive impairment. Health and Technology, 2019, 9, 123-133.	2.1	12
61	Extensive Evaluation of Morphological Statistical Harmonization for Brain Age Prediction. Brain Sciences, 2020, 10, 364.	1.1	12
62	Sustainable development goals: conceptualization, communication and achievement synergies in a complex network framework. Applied Network Science, 2022, 7, 14.	0.8	12
63	Association between Structural Connectivity and Generalized Cognitive Spectrum in Alzheimer's Disease. Brain Sciences, 2020, 10, 879.	1.1	11
64	Brain Age Prediction With Morphological Features Using Deep Neural Networks: Results From Predictive Analytic Competition 2019. Frontiers in Psychiatry, 2020, 11, 619629.	1.3	11
65	Search of microcalcification clusters with the CALMA CAD station. , 2002, , .		10
66	Hybrid x-space: a new approach for MPI reconstruction. Physics in Medicine and Biology, 2016, 61, 4061-4077.	1.6	10
67	Trial latencies estimation of event-related potentials in EEG by means of genetic algorithms. Journal of Neural Engineering, 2018, 15, 026016.	1.8	10
68	A Machine Learning Approach to Parkinson's Disease Blood Transcriptomics. Genes, 2022, 13, 727.	1.0	10
69	Multi-site harmonization of MRI data uncovers machine-learning discrimination capability in barely separable populations: An example from the ABIDE dataset. NeuroImage: Clinical, 2022, 35, 103082.	1.4	10
70	Combined mixed approach algorithm for in–line phase–contrast x–ray imaging. Medical Physics, 2010, 37, 3817-3827.	1.6	9
71	Post-detection analysis for grating-based ultra-small angle X-ray scattering. Physica Medica, 2013, 29, 478-486.	0.4	9
72	Random Forest Classification for Hippocampal Segmentation in 3D MR Images. , 2013, , .		9

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73	Potential energy of complex networks: a quantum mechanical perspective. Scientific Reports, 2020, 10, 18387.	1.6	9
74	Editorial: Explainable Artificial Intelligence (XAI) in Systems Neuroscience. Frontiers in Systems Neuroscience, 2021, 15, 766980.	1.2	9
75	Validity of Machine Learning in Predicting Giant Cell Arteritis Flare After Glucocorticoids Tapering. Frontiers in Immunology, 2022, 13, 860877.	2.2	9
76	Measurements of spectral and position resolution on a 16x16 pixel CZT imaging hard x-ray detector. , 2004, , .		8
77	A Multiplex Network Model to Characterize Brain Atrophy in Structural MRI. Springer Proceedings in Physics, 2017, , 189-198.	0.1	8
78	A primer on machine learning techniques for genomic applications. Computational and Structural Biotechnology Journal, 2021, 19, 4345-4359.	1.9	8
79	GPCALMA: An Italian Mammographic Database of Digitized Images for Research. Lecture Notes in Computer Science, 2006, , 384-391.	1.0	8
80	The CALMA project. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 461, 428-429.	0.7	7
81	Deconvolution by finite-size-source effects of x-ray phase-contrast images. Medical Physics, 2011, 38, 1951-1961.	1.6	7
82	Elite VABB 13G: A New Ultrasound-Guided Wireless Biopsy System for Breast Lesions. Technical Characteristics and Comparison with Respect to Traditional Core-Biopsy 14â€"16G Systems. Diagnostics, 2020, 10, 291.	1.3	7
83	Complex Network Modelling of Originâ€"Destination Commuting Flows for the COVID-19 Epidemic Spread Analysis in Italian Lombardy Region. Applied Sciences (Switzerland), 2021, 11, 4381.	1.3	7
84	Diagnostic performance of radiologists with and without different CAD systems for mammography. , 2003, 5034, 51.		6
85	Satellite data and machine learning reveal a significant correlation between NO2 and COVID-19 mortality. Environmental Research, 2022, 204, 111970.	3.7	6
86	The CALMA system: an artificial neural network method for detecting masses and microcalcifications in digitized mammograms. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 518, 391-393.	0.7	5
87	PSI Clustering for the Assessment of Underground Infrastructure Deterioration. Remote Sensing, 2020, 12, 3681.	1.8	5
88	GPCALMA, a mammographic CAD in a GRID connection. International Congress Series, 2003, 1256, 944-949.	0.2	4
89	Computer Aided Detection System for Prediction of the Malaise during Hemodialysis. Computational and Mathematical Methods in Medicine, 2016, 2016, 1-10.	0.7	4
90	A novel Active Contour Model algorithm for contour detection in complex objects. , 2007, , .		3

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91	Topological Complex Networks Properties for Gene Community Detection Strategy: DRD2 Case Study. Springer Proceedings in Physics, 2017, , 199-208.	0.1	3
92	Random Forests Highlight the Combined Effect of Environmental Heavy Metals Exposure and Genetic Damages for Cardiovascular Diseases. Applied Sciences (Switzerland), 2021, 11, 8405.	1.3	3
93	Applications of PDEs inpainting to magnetic particle imaging and corneal topography. Opuscula Mathematica, 2019, 39, 453-482.	0.3	3
94	An innovative lung segmentation algorithm in CT images with accurate delimitation of the hilus pulmonis. , 2008, , .		2
95	A hybrid approach for FFP velocity gridding in MPI reconstruction. , 2015, , .		2
96	Multidimensional Neuroimaging Processing in ReCaS Datacenter. Lecture Notes in Computer Science, 2019, , 468-477.	1.0	2
97	Machine learning for the assessment of Alzheimer's disease through DTI. , 2017, , .		2
98	FLUXEN portable equipment for direct X-ray spectra measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 518, 389-390.	0.7	1
99	Salient Networks: A Novel Application to Study Brain Connectivity. Lecture Notes in Computer Science, 2017, , 444-453.	1.0	1
100	Salient networks: a novel application to study Alzheimer disease. BioMedical Engineering OnLine, 2018, 17, 162.	1.3	1
101	Individual Topological Analysis of Synchronization-Based Brain Connectivity. Applied Sciences (Switzerland), 2020, 10, 3275.	1.3	1
102	Mild Traumatic Brain Injury Outcome Prediction Based on Both Graph and K-nn Methods. Lecture Notes in Computer Science, 2016, , 271-281.	1.0	1
103	An SVM Based Approach for the Analysis Of Mammography Images. AIP Conference Proceedings, 2007, , .	0.3	0
104	Ant Colonies for the reconstruction of artificial 3D Objects. , 2007, , .		0
105	An Hippocampal Segmentation Tool Within an Open Cloud Infrastructure. Lecture Notes in Computer Science, 2015, , 193-200.	1.0	0
106	MRI analysis for hippocampus segmentation on a distributed infrastructure. , 2016, , .		0
107	Digital Image Processing in Medical Applications, April 22, 2008. , 2010, , 457-473.		0
108	A multi-layer MRI description of Parkinson's disease. , 2017, , .		0

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109	Association between MRI structural features and cognitive measures in pediatric multiple sclerosis. , 2017, , .		0
110	Age Related Topological Analysis of Synchronization-Based Functional Connectivity. Studies in Computational Intelligence, 2019, , 652-662.	0.7	0
111	Cross Recurrence Quantitative Analysis of Functional Magnetic Resonance Imaging. Lecture Notes in Computational Vision and Biomechanics, 2019, , 86-92.	0.5	0
112	Mapping digital governance projects through complex networks. , 2020, , .		0