Nicola Amoroso

List of Publications by Year
in descending order

79 papers	1,763 citations	304602 22 h-index	315616 38 g-index
80 all docs	80 docs citations	80 times ranked	2335 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	Complex networks reveal early MRI markers of Parkinson's disease. Medical Image Analysis, 2018, 48, 12-24.	7.0	112
3	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
4	Integrating longitudinal information in hippocampal volume measurements for the early detection of Alzheimer's disease. NeuroImage, 2016, 125, 834-847.	2.1	76
5	Crowdsourced estimation of cognitive decline and resilience in Alzheimer's disease. Alzheimer's and Dementia, 2016, 12, 645-653.	0.4	72
6	DTI measurements for Alzheimer's classification. Physics in Medicine and Biology, 2017, 62, 2361-2375.	1.6	57
7	<i>De Novo</i> Drug Design of Targeted Chemical Libraries Based on Artificial Intelligence and Pair-Based Multiobjective Optimization. Journal of Chemical Information and Modeling, 2020, 60, 4582-4593.	2.5	55
8	Multiplex Networks for Early Diagnosis of Alzheimer's Disease. Frontiers in Aging Neuroscience, 2018, 10, 365.	1.7	43
9	Machine learning reveals that prolonged exposure to air pollution is associated with SARS-CoV-2 mortality and infectivity in Italy. Environmental Pollution, 2020, 267, 115471.	3.7	42
10	Deep Learning and Multiplex Networks for Accurate Modeling of Brain Age. Frontiers in Aging Neuroscience, 2019, 11, 115.	1.7	41
11	High-concentration methane and ethane QEPAS detection employing partial least squares regression to filter out energy relaxation dependence on gas matrix composition. Photoacoustics, 2022, 26, 100349.	4.4	41
12	Grey matter volume patterns in thalamic nuclei are associated with familial risk for schizophrenia. Schizophrenia Research, 2017, 180, 13-20.	1.1	40
13	Predicting brain age with complex networks: From adolescence to adulthood. NeuroImage, 2021, 225, 117458.	2.1	39
14	Explainable Deep Learning for Personalized Age Prediction With Brain Morphology. Frontiers in Neuroscience, 2021, 15, 674055.	1.4	38
15	Automated voxel-by-voxel tissue classification for hippocampal segmentation: Methods and validation. Physica Medica, 2014, 30, 878-887.	0.4	31
16	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
17	Alzheimer's disease diagnosis based on the Hippocampal Unified Multi-Atlas Network (HUMAN) algorithm. BioMedical Engineering OnLine, 2018, 17, 6.	1.3	28
18	Multi-Time-Scale Features for Accurate Respiratory Sound Classification. Applied Sciences (Switzerland), 2020, 10, 8606.	1.3	27

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19	Communicability disruption in Alzheimer's disease connectivity networks. Journal of Complex Networks, 2019, 7, 83-100.	1.1	26
20	Association between miRNAs expression and cognitive performances of Pediatric Multiple Sclerosis patients: A pilot study. Brain and Behavior, 2019, 9, e01199.	1.0	26
21	Feature Selection Based on Machine Learning in MRIs for Hippocampal Segmentation. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-10.	0.7	25
22	Automated hippocampal segmentation in 3D MRI using random undersampling with boosting algorithm. Pattern Analysis and Applications, 2016, 19, 579-591.	3.1	24
23	Modelling cognitive loads in schizophrenia by means of new functional dynamic indexes. NeuroImage, 2019, 195, 150-164.	2.1	24
24	A Roadmap towards Breast Cancer Therapies Supported by Explainable Artificial Intelligence. Applied Sciences (Switzerland), 2021, 11, 4881.	1.3	24
25	A novel approach to brain connectivity reveals early structural changes in Alzheimer's disease. Physiological Measurement, 2018, 39, 074005.	1.2	22
26	A complex network approach reveals a pivotal substructure of genes linked to schizophrenia. PLoS ONE, 2018, 13, e0190110.	1.1	22
27	Machine Learning and DWI Brain Communicability Networks for Alzheimer's Disease Detection. Applied Sciences (Switzerland), 2020, 10, 934.	1.3	20
28	Shannon entropy approach reveals relevant genes in Alzheimer's disease. PLoS ONE, 2019, 14, e0226190.	1.1	19
29	A fuzzy-based system reveals Alzheimer's Disease onset in subjects with Mild Cognitive Impairment. Physica Medica, 2017, 38, 36-44.	0.4	18
30	Transcriptomic context of *DRD1* 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
31	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
32	Machine Learning for Cloud Detection of Globally Distributed Sentinel-2 Images. Remote Sensing, 2020, 12, 2355.	1.8	18
33	Identifying potential gene biomarkers for Parkinson's disease through an information entropy based approach. Physical Biology, 2020, 18, 016003.	0.8	16
34	Alzheimer's disease markers from structural MRI and FDG-PET brain images. European Physical Journal Plus, 2012, 127, 1.	1.2	15
35	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
36	Multivariate regression analysis of structural MRI connectivity matrices in Alzheimer's disease. PLoS ONE, 2017, 12, e0187281.	1.1	15

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37	Territorial bias in university rankings: a complex network approach. Scientific Reports, 2022, 12, 4995.	1.6	15
38	Communicability Characterization of Structural DWI Subcortical Networks in Alzheimer's Disease. Entropy, 2019, 21, 475.	1.1	14
39	Topological Measurements of DWI Tractography for Alzheimer's Disease Detection. Computational and Mathematical Methods in Medicine, 2017, 2017, 1-10.	0.7	13
40	An equity-oriented rethink of global rankings with complex networks mapping development. Scientific Reports, 2020, 10, 18046.	1.6	13
41	The PERSON project: a serious brain-computer interface game for treatment in cognitive impairment. Health and Technology, 2019, 9, 123-133.	2.1	12
42	Extensive Evaluation of Morphological Statistical Harmonization for Brain Age Prediction. Brain Sciences, 2020, 10, 364.	1.1	12
43	Sustainable development goals: conceptualization, communication and achievement synergies in a complex network framework. Applied Network Science, 2022, 7, 14.	0.8	12
44	Association between Structural Connectivity and Generalized Cognitive Spectrum in Alzheimer's Disease. Brain Sciences, 2020, 10, 879.	1.1	11
45	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
46	Applying Big Data Methods to Understanding Human Behavior and Health. Frontiers in Computational Neuroscience, 2018, 12, 84.	1.2	10
47	A Machine Learning Approach to Parkinson's Disease Blood Transcriptomics. Genes, 2022, 13, 727.	1.0	10
48	Random Forest Classification for Hippocampal Segmentation in 3D MR Images. , 2013, , .		9
49	Potential energy of complex networks: a quantum mechanical perspective. Scientific Reports, 2020, 10, 18387.	1.6	9
50	Multiplex Networks to Characterize Seizure Development in Traumatic Brain Injury Patients. Frontiers in Neuroscience, 2020, 14, 591662.	1.4	9
51	Economic Interplay Forecasting Business Success. Complexity, 2021, 2021, 1-12.	0.9	9
52	A Multiplex Network Model to Characterize Brain Atrophy in Structural MRI. Springer Proceedings in Physics, 2017, , 189-198.	0.1	8
53	Estimating and comparing biodiversity with a single universal metric. Ecological Modelling, 2020, 424, 109020.	1.2	8
54	A primer on machine learning techniques for genomic applications. Computational and Structural Biotechnology Journal, 2021, 19, 4345-4359.	1.9	8

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55	A Proposal of Quantum-Inspired Machine Learning for Medical Purposes: An Application Case. Mathematics, 2021, 9, 410.	1.1	7
56	Complex Network Modelling of Origin–Destination Commuting Flows for the COVID-19 Epidemic Spread Analysis in Italian Lombardy Region. Applied Sciences (Switzerland), 2021, 11, 4381.	1.3	7
57	Satellite data and machine learning reveal a significant correlation between NO_2 and COVID-19 mortality. Environmental Research, 2022, 204, 111970.	3.7	6
58	Psychological counseling in the Italian academic context: Expected needs, activities, and target population in a large sample of students. PLoS ONE, 2022, 17, e0266895.	1.1	6
59	PSI Clustering for the Assessment of Underground Infrastructure Deterioration. Remote Sensing, 2020, 12, 3681.	1.8	5
60	Characterization of real-world networks through quantum potentials. PLoS ONE, 2021, 16, e0254384.	1.1	5
61	Computer Aided Detection System for Prediction of the Malaise during Hemodialysis. Computational and Mathematical Methods in Medicine, 2016, 2016, 1-10.	0.7	4
62	Complex networks and public funding: the case of the 2007-2013 Italian program. EPJ Data Science, 2015, 4, .	1.5	3
63	Topological Complex Networks Properties for Gene Community Detection Strategy: DRD2 Case Study. Springer Proceedings in Physics, 2017, , 199-208.	0.1	3
64	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
65	Diffusion-weighted imaging (DWI) tractography and Alzheimer's disease. , 2020, , 313-325.		3
66	Multidimensional Neuroimaging Processing in ReCaS Datacenter. Lecture Notes in Computer Science, 2019, , 468-477.	1.0	2
67	Machine learning for the assessment of Alzheimer's disease through DTI. , 2017, , .		2
68	Salient Networks: A Novel Application to Study Brain Connectivity. Lecture Notes in Computer Science, 2017, , 444-453.	1.0	1
69	24. Alzheimer pattern recognition in brain images using complex networks. Physica Medica, 2018, 56, 76.	0.4	1
70	Salient networks: a novel application to study Alzheimer disease. BioMedical Engineering OnLine, 2018, 17, 162.	1.3	1
71	Individual Topological Analysis of Synchronization-Based Brain Connectivity. Applied Sciences (Switzerland), 2020, 10, 3275.	1.3	1
72	Integrating Supervised Classification in Social Participation Systems for Disaster Response. A Pilot Study. Lecture Notes in Computer Science, 2017, , 675-686.	1.0	1

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73	An Hippocampal Segmentation Tool Within an Open Cloud Infrastructure. Lecture Notes in Computer Science, 2015, , 193-200.	1.0	0
74	MRI analysis for hippocampus segmentation on a distributed infrastructure. , 2016, , .		0
75	From complex to neural networks. , 2021, , 137-154.		0
76	A multi-layer MRI description of Parkinson's disease. , 2017, , .		0
77	Association between MRI structural features and cognitive measures in pediatric multiple sclerosis. , 2017, , .		0
78	Age Related Topological Analysis of Synchronization-Based Functional Connectivity. Studies in Computational Intelligence, 2019, , 652-662.	0.7	0
79	Mapping digital governance projects through complex networks. , 2020, , .		0