

Isabella Castiglioni

List of Publications by Year in descending order

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123
papers

8,031
citations

117453

34
h-index

58464

82
g-index

130
all docs

130
docs citations

130
times ranked

12765
citing authors

#	ARTICLE	IF	CITATIONS
1	TCGAbiolinks: an R/Bioconductor package for integrative analysis of TCGA data. <i>Nucleic Acids Research</i> , 2016, 44, e71-e71.	6.5	2,519
2	MicroRNAs: New Biomarkers for Diagnosis, Prognosis, Therapy Prediction and Therapeutic Tools for Breast Cancer. <i>Theranostics</i> , 2015, 5, 1122-1143.	4.6	664
3	Shared Cortical Anatomy for Motor Awareness and Motor Control. <i>Science</i> , 2005, 309, 488-491.	6.0	330
4	Functional heterogeneity of left inferior frontal cortex as revealed by fMRI. <i>NeuroReport</i> , 1997, 8, 2011-2016.	0.6	297
5	AI applications to medical images: From machine learning to deep learning. <i>Physica Medica</i> , 2021, 83, 9-24.	0.4	253
6	A Standardized [18F]-FDG-PET Template for Spatial Normalization in Statistical Parametric Mapping of Dementia. <i>Neuroinformatics</i> , 2014, 12, 575-593.	1.5	240
7	Machine learning on brain MRI data for differential diagnosis of Parkinson's disease and Progressive Supranuclear Palsy. <i>Journal of Neuroscience Methods</i> , 2014, 222, 230-237.	1.3	221
8	Magnetic resonance imaging biomarkers for the early diagnosis of Alzheimer's disease: a machine learning approach. <i>Frontiers in Neuroscience</i> , 2015, 9, 307.	1.4	187
9	Validation of an optimized SPM procedure for FDG-PET in dementia diagnosis in a clinical setting. <i>NeuroImage: Clinical</i> , 2014, 6, 445-454.	1.4	172
10	Acupuncture Produces Central Activations in Pain Regions. <i>NeuroImage</i> , 2001, 14, 60-66.	2.1	163
11	Phenotypic heterogeneity of Niemann-Pick disease type C in monozygotic twins. <i>Journal of Neurology</i> , 2015, 262, 642-647.	1.8	156
12	In Silico Discovery of Candidate Drugs against Covid-19. <i>Viruses</i> , 2020, 12, 404.	1.5	156
13	Use of Machine Learning to Identify Children with Autism and Their Motor Abnormalities. <i>Journal of Autism and Developmental Disorders</i> , 2015, 45, 2146-2156.	1.7	146
14	MicroRNAs as Biomarkers for Diagnosis, Prognosis and Theranostics in Prostate Cancer. <i>International Journal of Molecular Sciences</i> , 2016, 17, 421.	1.8	117
15	Performance evaluation of the new whole-body PET/CT scanner: Discovery ST. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2004, 31, 867-881.	3.3	109
16	Optimizing Neuropsychological Assessments for Cognitive, Behavioral, and Functional Impairment Classification: A Machine Learning Study. <i>Behavioural Neurology</i> , 2017, 2017, 1-19.	1.1	76
17	Machine learning applied on chest x-ray can aid in the diagnosis of COVID-19: a first experience from Lombardy, Italy. <i>European Radiology Experimental</i> , 2021, 5, 7.	1.7	74
18	Frontiers for the Early Diagnosis of AD by Means of MRI Brain Imaging and Support Vector Machines. <i>Current Alzheimer Research</i> , 2016, 13, 509-533.	0.7	72

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19	Interpreting pathways to discover cancer driver genes with Moonlight. <i>Nature Communications</i> , 2020, 11, 69.	5.8	66
20	Identification of microRNA clusters cooperatively acting on epithelial to mesenchymal transition in triple negative breast cancer. <i>Nucleic Acids Research</i> , 2019, 47, 2205-2215.	6.5	65
21	PET quantification: strategies for partial volume correction. <i>Clinical and Translational Imaging</i> , 2014, 2, 199-218.	1.1	63
22	[18F]FDG PET/CT features for the molecular characterization of primary breast tumors. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2017, 44, 1945-1954.	3.3	61
23	Quantitative measurement of 18F-FDG PET/CT uptake reflects the expansion of circulating plasmablasts in IgG4-related disease. <i>Rheumatology</i> , 2017, 56, 2084-2092.	0.9	60
24	Integration of mRNA Expression Profile, Copy Number Alterations, and microRNA Expression Levels in Breast Cancer to Improve Grade Definition. <i>PLoS ONE</i> , 2014, 9, e97681.	1.1	53
25	Radiomics and gene expression profile to characterise the disease and predict outcome in patients with lung cancer. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2021, 48, 3643-3655.	3.3	53
26	MRI Characterizes the Progressive Course of AD and Predicts Conversion to Alzheimer's Dementia 24 Months Before Probable Diagnosis. <i>Frontiers in Aging Neuroscience</i> , 2018, 10, 135.	1.7	52
27	Artificial intelligence and neuropsychological measures: The case of Alzheimer's disease. <i>Neuroscience and Biobehavioral Reviews</i> , 2020, 114, 211-228.	2.9	51
28	SpidermiR: An R/Bioconductor Package for Integrative Analysis with miRNA Data. <i>International Journal of Molecular Sciences</i> , 2017, 18, 274.	1.8	50
29	Response to chemotherapy in gastric adenocarcinoma with diffusion-weighted MRI and ¹⁸ F-FDG PET/CT: Correlation of apparent diffusion coefficient and partial volume corrected standardized uptake value with histological tumor regression grade. <i>Journal of Magnetic Resonance Imaging</i> , 2014, 40, 1147-1157.	1.9	49
30	Integration of multiple networks and pathways identifies cancer driver genes in pan-cancer analysis. <i>BMC Genomics</i> , 2018, 19, 25.	1.2	46
31	Comparison of Transfer Learning and Conventional Machine Learning Applied to Structural Brain MRI for the Early Diagnosis and Prognosis of Alzheimer's Disease. <i>Frontiers in Neurology</i> , 2020, 11, 576194.	1.1	43
32	Integrating genetics and epigenetics in breast cancer: biological insights, experimental, computational methods and therapeutic potential. <i>BMC Systems Biology</i> , 2015, 9, 62.	3.0	40
33	The utility of FDG-PET in the differential diagnosis of Parkinsonism. <i>Neurological Research</i> , 2017, 39, 675-684.	0.6	38
34	Potential Role of miRNAs as Theranostic Biomarkers of Epilepsy. <i>Molecular Therapy - Nucleic Acids</i> , 2018, 13, 275-290.	2.3	37
35	Computerized Neuropsychological Assessment in Aging: Testing Efficacy and Clinical Ecology of Different Interfaces. <i>Computational and Mathematical Methods in Medicine</i> , 2014, 2014, 1-13.	0.7	36
36	Texture descriptors and voxels for the early diagnosis of Alzheimer's disease. <i>Artificial Intelligence in Medicine</i> , 2019, 97, 19-26.	3.8	34

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37	Unified description and validation of Monte Carlo simulators in PET. <i>Physics in Medicine and Biology</i> , 2005, 50, 329-346.	1.6	33
38	PVE Correction in PET-CT Whole-Body Oncological Studies From PVE-Affected Images. <i>IEEE Transactions on Nuclear Science</i> , 2011, 58, 736-747.	1.2	33
39	MicroRNA-567 dysregulation contributes to carcinogenesis of breast cancer, targeting tumor cell proliferation, and migration. <i>Breast Cancer Research and Treatment</i> , 2017, 161, 605-616.	1.1	32
40	Combining multiple approaches for the early diagnosis of Alzheimer's Disease. <i>Pattern Recognition Letters</i> , 2016, 84, 259-266.	2.6	31
41	Radiomics approach in the neurodegenerative brain. <i>Aging Clinical and Experimental Research</i> , 2021, 33, 1709-1711.	1.4	31
42	Integrative Analysis with Monte Carlo Cross-Validation Reveals miRNAs Regulating Pathways Cross-Talk in Aggressive Breast Cancer. <i>BioMed Research International</i> , 2015, 2015, 1-17.	0.9	30
43	Circulating microRNAs as Potential Novel Diagnostic Biomarkers to Predict Drug Resistance in Temporal Lobe Epilepsy: A Pilot Study. <i>International Journal of Molecular Sciences</i> , 2021, 22, 702.	1.8	30
44	AI-based applications in hybrid imaging: how to build smart and truly multi-parametric decision models for radiomics. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2019, 46, 2673-2699.	3.3	29
45	The Adoption of Radiomics and machine learning improves the diagnostic processes of women with Ovarian MAsses (the AROMA pilot study). <i>Journal of Ultrasound</i> , 2021, 24, 429-437.	0.7	29
46	Radiation-Induced Gene Expression Changes in High and Low Grade Breast Cancer Cell Types. <i>International Journal of Molecular Sciences</i> , 2018, 19, 1084.	1.8	28
47	A wrapped multi-label classifier for the automatic diagnosis and prognosis of Alzheimer's disease. <i>Journal of Neuroscience Methods</i> , 2018, 302, 58-65.	1.3	27
48	Latent classes of emotional and behavioural problems in epidemiological and referred samples and their relations to DSM-IV diagnoses. <i>European Child and Adolescent Psychiatry</i> , 2017, 26, 549-557.	2.8	25
49	Parameters Influencing PET Imaging Features: A Phantom Study with Irregular and Heterogeneous Synthetic Lesions. <i>Contrast Media and Molecular Imaging</i> , 2018, 2018, 1-12.	0.4	24
50	In silico identification of drug target pathways in breast cancer subtypes using pathway cross-talk inhibition. <i>Journal of Translational Medicine</i> , 2018, 16, 154.	1.8	24
51	Theranostic application of miR-429 in HER2+ breast cancer. <i>Theranostics</i> , 2020, 10, 50-61.	4.6	24
52	The potential of miRNAs for diagnosis, treatment and monitoring of breast cancer. <i>Scandinavian Journal of Clinical and Laboratory Investigation</i> , 2016, 76, S34-S39.	0.6	22
53	A fully automatic, threshold-based segmentation method for the estimation of the Metabolic Tumor Volume from PET images: validation on 3D printed anthropomorphic oncological lesions. <i>Journal of Instrumentation</i> , 2016, 11, C01022-C01022.	0.5	22
54	Portrait of Tissue-Specific Coexpression Networks of Noncoding RNAs (miRNA and lncRNA) and mRNAs in Normal Tissues. <i>Computational and Mathematical Methods in Medicine</i> , 2019, 2019, 1-14.	0.7	22

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55	The Utility of a Computerized Algorithm Based on a Multi-Domain Profile of Measures for the Diagnosis of Attention Deficit/Hyperactivity Disorder. <i>Frontiers in Psychiatry</i> , 2017, 8, 189.	1.3	21
56	How interacting pathways are regulated by miRNAs in breast cancer subtypes. <i>BMC Bioinformatics</i> , 2016, 17, 348.	1.2	20
57	Acute Inescapable Stress Rapidly Increases Synaptic Energy Metabolism in Prefrontal Cortex and Alters Working Memory Performance. <i>Cerebral Cortex</i> , 2019, 29, 4948-4957.	1.6	20
58	The Giotto's workshop in the XXI century: looking inside the "God the Father with Angels" gable. <i>Journal of Cultural Heritage</i> , 2019, 36, 255-263.	1.5	20
59	Biomarkers of Eating Disorders Using Support Vector Machine Analysis of Structural Neuroimaging Data: Preliminary Results. <i>Behavioural Neurology</i> , 2015, 2015, 1-10.	1.1	19
60	Functional correlates of preserved naming performance in amnesic Mild Cognitive Impairment. <i>Neuropsychologia</i> , 2015, 76, 136-152.	0.7	18
61	A protein interaction map identifies existing drugs targeting SARS-CoV-2. <i>BMC Pharmacology & Toxicology</i> , 2020, 21, 65.	1.0	18
62	Integration of Molecular Docking and In Vitro Studies: A Powerful Approach for Drug Discovery in Breast Cancer. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 6981.	1.3	18
63	Statistical Voxel-Based Methods and [18F]FDG PET Brain Imaging: Frontiers for the Diagnosis of AD. <i>Current Alzheimer Research</i> , 2016, 13, 682-694.	0.7	18
64	Pathway-based classification of breast cancer subtypes. <i>Frontiers in Bioscience - Landmark</i> , 2017, 22, 1697-1712.	3.0	17
65	Advanced Imaging Analysis in Prostate MRI: Building a Radiomic Signature to Predict Tumor Aggressiveness. <i>Diagnostics</i> , 2021, 11, 594.	1.3	17
66	Integration of ¹⁸ F-FDG-PET Metabolic and Functional Connectomes in the Early Diagnosis and Prognosis of the Alzheimer's Disease. <i>Current Alzheimer Research</i> , 2016, 13, 487-497.	0.7	17
67	Biomarkers from in vivo molecular imaging of breast cancer: pretreatment 18F-FDG PET predicts patient prognosis, and pretreatment DWI-MR predicts response to neoadjuvant chemotherapy. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2017, 30, 359-373.	1.1	16
68	In Silico Approach for the Definition of radiomiRNomic Signatures for Breast Cancer Differential Diagnosis. <i>International Journal of Molecular Sciences</i> , 2019, 20, 5825.	1.8	16
69	Imaging and spectroscopic data combined to disclose the painting techniques and materials in the fifteenth century Leonardo atelier in Milan. <i>Dyes and Pigments</i> , 2021, 187, 109112.	2.0	16
70	The impact of different 18FDG PET healthy subject scans for comparison with single patient in SPM analysis. <i>Quarterly Journal of Nuclear Medicine and Molecular Imaging</i> , 2017, 61, 115-132.	0.4	16
71	Combined analysis of chromosomal instabilities and gene expression for colon cancer progression inference. <i>Journal of Clinical Bioinformatics</i> , 2014, 4, 2.	1.2	15
72	Development and Validation of an AI-driven Mammographic Breast Density Classification Tool Based on Radiologist Consensus. <i>Radiology: Artificial Intelligence</i> , 2022, 4, e210199.	3.0	15

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73	A Monte Carlo model of noise components in 3D PET. IEEE Transactions on Nuclear Science, 2002, 49, 2297-2303.	1.2	14
74	Radiomics: is it time to compose the puzzle?. Clinical and Translational Imaging, 2018, 6, 411-413.	1.1	14
75	Artificial Intelligence Applied to Chest X-ray for Differential Diagnosis of COVID-19 Pneumonia. Diagnostics, 2021, 11, 530.	1.3	14
76	In Silico Identification of miRNAâ€“lncRNA Interactions in Male Reproductive Disorder Associated with COVID-19 Infection. Cells, 2021, 10, 1480.	1.8	14
77	Identification of long non-coding RNAs and RNA binding proteins in breast cancer subtypes. Scientific Reports, 2022, 12, 693.	1.6	14
78	Machine-learning neuroimaging challenge for automated diagnosis of mild cognitive impairment: Lessons learnt. Journal of Neuroscience Methods, 2018, 302, 10-13.	1.3	13
79	Alternating Dynamics of Segregation and Integration in Human EEG Functional Networks During Working-memory Task. Neuroscience, 2018, 371, 191-206.	1.1	12
80	A Graph-Based Method for PET Image Segmentation in Radiotherapy Planning: A Pilot Study. Lecture Notes in Computer Science, 2013, , 711-720.	1.0	12
81	Lesion detectability and quantification in PET/CT oncological studies by Monte Carlo simulations. IEEE Transactions on Nuclear Science, 2005, 52, 136-142.	1.2	11
82	In-Silico Integration Approach to Identify a Key miRNA Regulating a Gene Network in Aggressive Prostate Cancer. International Journal of Molecular Sciences, 2018, 19, 910.	1.8	11
83	Copyâ€“Number Alterations for Tumor Progression Inference. Lecture Notes in Computer Science, 2013, , 104-109.	1.0	11
84	A Low-Dose CT-Based Radiomic Model to Improve Characterization and Screening Recall Intervals of Indeterminate Prevalent Pulmonary Nodules. Diagnostics, 2021, 11, 1610.	1.3	10
85	Partial volume corrected 18F-FDG PET mean standardized uptake value correlates with prognostic factors in breast cancer. Quarterly Journal of Nuclear Medicine and Molecular Imaging, 2014, 58, 424-39.	0.4	10
86	The Compression Flow as a Measure to Estimate the Brain Connectivity Changes in Resting State fMRI and 18FDG-PET Alzheimer's Disease Connectomes. Frontiers in Computational Neuroscience, 2015, 9, 148.	1.2	9
87	In silico perturbation of drug targets in pan-cancer analysis combining multiple networks and pathways. Gene, 2019, 698, 100-106.	1.0	9
88	Triple negative aggressive phenotype controlled by miR-135b and miR-365: new theranostics candidates. Scientific Reports, 2021, 11, 6553.	1.6	9
89	Evaluation of pre- and post-reconstruction count-dependent Metz filters for brain PET studies. Medical Physics, 1997, 24, 1431-1440.	1.6	8
90	Identification of Breast Cancer Subtype-Specific Biomarkers by Integrating Copy Number Alterations and Gene Expression Profiles. Medicina (Lithuania), 2021, 57, 261.	0.8	8

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91	A decision support system based on radiomics and machine learning to predict the risk of malignancy of ovarian masses from transvaginal ultrasonography and serum CA-125. <i>European Radiology Experimental</i> , 2021, 5, 28.	1.7	8
92	Amyotrophic Lateral Sclerosis: A Diet Review. <i>Foods</i> , 2021, 10, 3128.	1.9	8
93	Multi-Modal Medical Image Integration to Optimize Radiotherapy Planning in Lung Cancer Treatment. <i>Annals of Biomedical Engineering</i> , 2004, 32, 1399-1408.	1.3	6
94	Perturbations of pathway co-expression network identify a core network in metastatic breast cancer. <i>Computational Biology and Chemistry</i> , 2020, 87, 107313.	1.1	6
95	A tri-modal tissue-equivalent anthropomorphic phantom for PET, CT and multi-parametric MRI radiomics. <i>Physica Medica</i> , 2022, 98, 28-39.	0.4	6
96	Prone 18F-FDG PET/CT changes diagnostic and surgical intervention in a breast cancer patient: some considerations about PET/CT imaging acquisition protocol. <i>Clinical Imaging</i> , 2015, 39, 506-509.	0.8	5
97	Editorial (Thematic Issue: Statistical Signal Processing in the Analysis, Characterization and Detection) <i>Tj ETQq1 1 0,784314 rgBT /Over</i>	0.7	5
98	A Method for Manufacturing Oncological Phantoms for the Quantification of 18F-FDG PET and DW-MRI Studies. <i>Contrast Media and Molecular Imaging</i> , 2017, 2017, 1-7.	0.4	5
99	Patient-Specific Network for Personalized Breast Cancer Therapy with Multi-Omics Data. <i>Entropy</i> , 2021, 23, 225.	1.1	5
100	Potential drugs against COVID-19 revealed by gene expression profile, molecular docking and molecular dynamic simulation. <i>Future Virology</i> , 2021, 16, 527-542.	0.9	5
101	A Machine Learning Ensemble Based on Radiomics to Predict BI-RADS Category and Reduce the Biopsy Rate of Ultrasound-Detected Suspicious Breast Masses. <i>Diagnostics</i> , 2022, 12, 187.	1.3	5
102	Variant calling from scRNA-seq data allows the assessment of cellular identity in patient-derived cell lines. <i>Nature Communications</i> , 2022, 13, 2718.	5.8	5
103	Prognostic Value of 18F-Fluorocholine PET Parameters in Metastatic Castrate-Resistant Prostate Cancer Patients Treated with Docetaxel. <i>Contrast Media and Molecular Imaging</i> , 2019, 2019, 1-7.	0.4	4
104	Short-Term Classification Learning Promotes Rapid Global Improvements of Information Processing in Human Brain Functional Connectome. <i>Frontiers in Human Neuroscience</i> , 2019, 13, 462.	1.0	4
105	Identification of key miRNAs in prostate cancer progression based on miRNA-mRNA network construction. <i>Computational and Structural Biotechnology Journal</i> , 2022, 20, 864-873.	1.9	4
106	Enabling solutions for an efficient compression of PET-CT datasets. , 2009, , .		3
107	Frontiers from Radiomics in Molecular Imaging. <i>Contrast Media and Molecular Imaging</i> , 2019, 2019, 1-2.	0.4	3
108	TOUCH-SUV: a Touchscreen-Assisted Tool for Quantitative, Reproducible, Clinically Feasible and Collaborative Diagnostic Reporting of Whole-Body PET-CT Studies. <i>International Journal of Software Engineering</i> , 2012, 1, 24-31.	0.3	3

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109	A study on quality level reproducibility for the usability of irreversible compression in radiological imaging. , 2011, , .		2
110	Adaptive threshold method based on PET measured lesion-to-background ratio for the estimation of Metabolic Target Volume from 18 F-FDG PET images. , 2013, , .		2
111	A Decision Support System Based on BI-RADS and Radiomic Classifiers to Reduce False Positive Breast Calcifications at Digital Breast Tomosynthesis: A Preliminary Study. Applied Sciences (Switzerland), 2021, 11, 2503.	1.3	2
112	Minor Allele Frequencies and Molecular Pathways Differences for SNPs Associated with Amyotrophic Lateral Sclerosis in Subjects Participating in the UKBB and 1000 Genomes Project. Journal of Clinical Medicine, 2021, 10, 3394.	1.0	2
113	Bioinformatics Clouds for High-Throughput Technologies. Advances in Data Mining and Database Management Book Series, 2014, , 489-507.	0.4	2
114	Transcriptional Profiling of Hippocampus Identifies Network Alterations in Alzheimer's Disease. Applied Sciences (Switzerland), 2022, 12, 5035.	1.3	2
115	Grid-distributed Statistical Parametric Mapping of SPECT and PET Neuroimages. Neuroinformatics, 2011, 9, 85-90.	1.5	1
116	Candidate biomarkers for response to tamoxifen in breast cancer metastatic patients. , 2013, , .		1
117	An anthropomorphic phantom for advanced image processing of realistic 18 F-FDG PET-CT oncological studies. , 2016, , .		1
118	Hybrid PET/MRI for In Vivo Imaging of Cancer: Current Clinical Experiences and Recent Advances. Current Medical Imaging, 2016, 12, 106-117.	0.4	1
119	A Combined Deep Learning System for Automatic Detection of "Bovine" Aortic Arch on Computed Tomography Scans. Applied Sciences (Switzerland), 2022, 12, 2056.	1.3	1
120	Quantitation and Data Analysis in Hybrid PET/MRI Systems. , 2016, , 23-30.		0
121	The eye of nuclear medicine. Clinical and Translational Imaging, 2019, 7, 233-235.	1.1	0
122	E-Health Decision Support Systems for the Diagnosis of Dementia Diseases. , 2013, , 84-97.		0
123	Bioinformatics Clouds for High-Throughput Technologies. , 2015, , 1294-1311.		0