Leonardo Rundo

List of Publications by Year
in descending order

85 papers	2,734 citations	236612 25 h-index	243296 44 g-index
93 all docs	93 docs citations	93 times ranked	2261 citing authors

#	Article	IF	Citations
1	*Hercules*: Deep Hierarchical Attentive Multilevel Fusion Model With Uncertainty Quantification for Medical Image Classification. IEEE Transactions on Industrial Informatics, 2023, 19, 274-285.	7.2	25
2	Comparative performance of MRI-derived PRECISE scores and delta-radiomics models for the prediction of prostate cancer progression in patients on active surveillance. European Radiology, 2022, 32, 680-689.	2.3	28
3	3D DCE-MRI Radiomic Analysis for Malignant Lesion Prediction in Breast Cancer Patients. Academic Radiology, 2022, 29, 830-840.	1.3	31
4	Serial changes in tumour measurements and apparent diffusion coefficients in prostate cancer patients on active surveillance with and without histopathological progression. British Journal of Radiology, 2022, 95, 20210842.	1.0	10
5	Semi-automated and interactive segmentation of contrast-enhancing masses on breast DCE-MRI using spatial fuzzy clustering. Biomedical Signal Processing and Control, 2022, 71, 103113.	3.5	35
6	Unified Focal loss: Generalising Dice and cross entropy-based losses to handle class imbalanced medical image segmentation. Computerized Medical Imaging and Graphics, 2022, 95, 102026.	3.5	186
7	SMGen: A Generator of Synthetic Models of Biochemical Reaction Networks. Symmetry, 2022, 14, 119.	1.1	6
8	Comparative performance of fully-automated and semi-automated artificial intelligence methods for the detection of clinically significant prostate cancer on MRI: a systematic review. Insights Into Imaging, 2022, 13, 59.	1.6	29
9	On Unsupervised Methods for Medical Image Segmentation: Investigating Classic Approaches in Breast Cancer DCE-MRI. Applied Sciences (Switzerland), 2022, 12, 162.	1.3	9
10	Focal Attention Networks: Optimising Attention for Biomedical Image Segmentation. , 2022, , .		3
11	Robustness Analysis of DCE-MRI-Derived Radiomic Features in Breast Masses: Assessing Quantization Levels and Segmentation Agreement. Applied Sciences (Switzerland), 2022, 12, 5512.	1.3	4
12	A Novel Bio-Inspired Approach for High-Performance Management in Service-Oriented Networks. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 1709-1722.	3.2	30
13	Ultrasound-guided targeted biopsies of CT-based radiomic tumour habitats: technical development and initial experience in metastatic ovarian cancer. European Radiology, 2021, 31, 3765-3772.	2.3	20
14	CT texture-based radiomics analysis of carotid arteries identifies vulnerable patients: a preliminary outcome study. Neuroradiology, 2021, 63, 1043-1052.	1.1	16
15	Assessing robustness of carotid artery CT angiography radiomics in the identification of culprit lesions in cerebrovascular events. Scientific Reports, 2021, 11, 3499.	1.6	26
16	A quantum-inspired classifier for clonogenic assay evaluations. Scientific Reports, 2021, 11, 2830.	1.6	25
17	AI applications to medical images: From machine learning to deep learning. Physica Medica, 2021, 83, 9-24.	0.4	253
18	A Computational Study on Temperature Variations in MRgFUS Treatments Using PRF Thermometry Techniques and Optical Probes. Journal of Imaging, 2021, 7, 63.	1.7	2

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19	MADGAN: unsupervised medical anomaly detection GAN using multiple adjacent brain MRI slice reconstruction. BMC Bioinformatics, 2021, 22, 31.	1.2	86
20	Robustness of radiomic features in CT images with different slice thickness, comparing liver tumour and muscle. Scientific Reports, 2021, 11, 8262.	1.6	28
21	Fingerprint Classification Based on Deep Learning Approaches: Experimental Findings and Comparisons. Symmetry, 2021, 13, 750.	1.1	24
22	Reproducibility of CT-based radiomic features against image resampling and perturbations for tumour and healthy kidney in renal cancer patients. Scientific Reports, 2021, 11, 11542.	1.6	16
23	MRI-derived radiomics model for baseline prediction of prostate cancer progression on active surveillance. Scientific Reports, 2021, 11, 12917.	1.6	17
24	FiCoS: A fine-grained and coarse-grained GPU-powered deterministic simulator for biochemical networks. PLoS Computational Biology, 2021, 17, e1009410.	1.5	1
25	3D deformable registration of longitudinal abdominopelvic CT images using unsupervised deep learning. Computer Methods and Programs in Biomedicine, 2021, 208, 106261.	2.6	9
26	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
27	Focus U-Net: A novel dual attention-gated CNN for polyp segmentation during colonoscopy. Computers in Biology and Medicine, 2021, 137, 104815.	3.9	68
28	A CUDA-powered method for the feature extraction and unsupervised analysis of medical images. Journal of Supercomputing, 2021, 77, 8514-8531.	2.4	6
29	Hyperpolarized Carbon-13 MRI for Early Response Assessment of Neoadjuvant Chemotherapy in Breast Cancer Patients. Cancer Research, 2021, 81, 6004-6017.	0.4	25
30	Impact of GAN-based lesion-focused medical image super-resolution on the robustness of radiomic features. Scientific Reports, 2021, 11, 21361.	1.6	18
31	A multimodal retina–iris biometric system using the Levenshtein distance for spatial feature comparison. IET Biometrics, 2021, 10, 44-64.	1.6	8
32	Advanced Computational Methods for Oncological Image Analysis. Journal of Imaging, 2021, 7, 237.	1.7	2
33	ACDC: Automated Cell Detection and Counting for Time-Lapse Fluorescence Microscopy. Applied Sciences (Switzerland), 2020, 10, 6187.	1.3	9
34	Correlating Radiomic Features of Heterogeneity on CT with Circulating Tumor DNA in Metastatic Melanoma. Cancers, 2020, 12, 3493.	1.7	18
35	Hyperpolarized ^{13}C MRI of Tumor Metabolism Demonstrates Early Metabolic Response to Neoadjuvant Chemotherapy in Breast Cancer. Radiology Imaging Cancer, 2020, 2, e200017.	0.7	40
36	HCI for biomedical decision-making: From diagnosis to therapy. Journal of Biomedical Informatics, 2020, 111, 103593.	2.5	1

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37	Recent advances of HCI in decision-making tasks for optimized clinical workflows and precision medicine. Journal of Biomedical Informatics, 2020, 108, 103479.	2.5	56
38	MF2C3: Multi-Feature Fuzzy Clustering to Enhance Cell Colony Detection in Automated Clonogenic Assay Evaluation. Symmetry, 2020, 12, 773.	1.1	14
39	Three-dimensional MRI evaluation of the effect of bladder volume on prostate translocation and distortion. Radiology and Oncology, 2020, 54, 48-56.	0.6	5
40	A Hybrid End-to-End Approach Integrating Conditional Random Fields into CNNs for Prostate Cancer Detection on MRI. Applied Sciences (Switzerland), 2020, 10, 338.	1.3	19
41	Quantifying the effect of biopsy lateral decubitus patient positioning compared to supine prostate MRI scanning on prostate translocation and distortion. Canadian Urological Association Journal, 2020, 14, E445-E452.	0.3	1
42	Tissue-specific and interpretable sub-segmentation of whole tumour burden on CT images by unsupervised fuzzy clustering. Computers in Biology and Medicine, 2020, 120, 103751.	3.9	27
43	Bridging the Gap Between AI and Healthcare Sides: Towards Developing Clinically Relevant AI-Powered Diagnosis Systems. IFIP Advances in Information and Communication Technology, 2020, , 320-333.	0.5	15
44	GAN-Based Multiple Adjacent Brain MRI Slice Reconstruction for Unsupervised Alzheimer's Disease Diagnosis. Lecture Notes in Computer Science, 2020, , 44-54.	1.0	9
45	CNN-Based Prostate Zonal Segmentation on T2-Weighted MR Images: A Cross-Dataset Study. Smart Innovation, Systems and Technologies, 2020, , 269-280.	0.5	20
46	Infinite Brain MR Images: PGGAN-Based Data Augmentation for Tumor Detection. Smart Innovation, Systems and Technologies, 2020, , 291-303.	0.5	46
47	Integrative radiogenomics for virtual biopsy and treatment monitoring in ovarian cancer. Insights Into Imaging, 2020, 11, 94.	1.6	30
48	HaraliCU: GPU-Powered Haralick Feature Extraction on Medical Images Exploiting the Full Dynamics of Gray-Scale Levels. Lecture Notes in Computer Science, 2019, , 304-318.	1.0	10
49	USE-Net: Incorporating Squeeze-and-Excitation blocks into U-Net for prostate zonal segmentation of multi-institutional MRI datasets. Neurocomputing, 2019, 365, 31-43.	3.5	185
50	A semi-automatic approach for epicardial adipose tissue segmentation and quantification on cardiac CT scans. Computers in Biology and Medicine, 2019, 114, 103424.	3.9	47
51	Learning More with Less. , 2019, , .		56
52	Synthesizing Diverse Lung Nodules Wherever Massively: 3D Multi-Conditional GAN-Based CT Image Augmentation for Object Detection. , 2019, , .		74
53	Combining Noise-to-Image and Image-to-Image GANs: Brain MR Image Augmentation for Tumor Detection. IEEE Access, 2019, 7, 156966-156977.	2.6	138
54	Semantic learning machine improves the CNN-Based detection of prostate cancer in non-contrast-enhanced MRI. , 2019, , .		7

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55	Enhancing classification performance of convolutional neural networks for prostate cancer detection on magnetic resonance images. , 2019, , .		1
56	Biochemical parameter estimation vs. benchmark functions: A comparative study of optimization performance and representation design. Applied Soft Computing Journal, 2019, 81, 105494.	4.1	45
57	GenHap: a novel computational method based on genetic algorithms for haplotype assembly. BMC Bioinformatics, 2019, 20, 172.	1.2	26
58	A novel framework for MR image segmentation and quantification by using MedGA. Computer Methods and Programs in Biomedicine, 2019, 176, 159-172.	2.6	43
59	High Performance Computing for Haplotyping: Models and Platforms. Lecture Notes in Computer Science, 2019, , 650-661.	1.0	1
60	A Survey on Nature-Inspired Medical Image Analysis: A Step Further in Biomedical Data Integration. Fundamenta Informaticae, 2019, 171, 345-365.	0.3	31
61	Computational Intelligence for Life Sciences. Fundamenta Informaticae, 2019, 171, 57-80.	0.3	5
62	MedGA: A novel evolutionary method for image enhancement in medical imaging systems. Expert Systems With Applications, 2019, 119, 387-399.	4.4	85
63	Computer-Assisted Approaches for Uterine Fibroid Segmentation in MRgFUS Treatments: Quantitative Evaluation and Clinical Feasibility Analysis. Smart Innovation, Systems and Technologies, 2019, , 229-241.	0.5	1
64	Estimation of Kinetic Reaction Constants: Exploiting Reboot Strategies to Improve PSO's Performance. Lecture Notes in Computer Science, 2019, , 92-102.	1.0	0
65	NeXt for neuro-radiosurgery: A fully automatic approach for necrosis extraction in brain tumor MRI using an unsupervised machine learning technique. International Journal of Imaging Systems and Technology, 2018, 28, 21-37.	2.7	41
66	GTVcut for neuro-radiosurgery treatment planning: an MRI brain cancer seeded image segmentation method based on a cellular automata model. Natural Computing, 2018, 17, 521-536.	1.8	32
67	A framework for data-driven adaptive GUI generation based on DICOM. Journal of Biomedical Informatics, 2018, 88, 37-52.	2.5	22
68	Computational Intelligence for Parameter Estimation of Biochemical Systems. , 2018, , .		21
69	GAN-based synthetic brain MR image generation. , 2018, , .		173
70	Energy Efficiency Evaluation of Dynamic Partial Reconfiguration in Field Programmable Gate Arrays: An Experimental Case Study. Energies, 2018, 11, 739.	1.6	3
71	GPU-Powered Multi-Swarm Parameter Estimation of Biological Systems: A Master-Slave Approach. , 2018, , .		6
72	Fully Automatic Multispectral MR Image Segmentation of Prostate Gland Based on the Fuzzy C-Means Clustering Algorithm. Smart Innovation, Systems and Technologies, 2018, , 23-37.	0.5	8

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73	A fully automatic approach for multimodal PET and MR image segmentation in gamma knife treatment planning. Computer Methods and Programs in Biomedicine, 2017, 144, 77-96.	2.6	39
74	Area-based cell colony surviving fraction evaluation: A novel fully automatic approach using general-purpose acquisition hardware. Computers in Biology and Medicine, 2017, 89, 454-465.	3.9	19
75	Proactive Particles in Swarm Optimization: A settings-free algorithm for real-parameter single objective optimization problems. , 2017, , .		22
76	Reboot strategies in particle swarm optimization and their impact on parameter estimation of biochemical systems. , 2017, , .		11
77	Automated Prostate Gland Segmentation Based on an Unsupervised Fuzzy C-Means Clustering Technique Using Multispectral T1w and T2w MR Imaging. Information (Switzerland), 2017, 8, 49.	1.7	48
78	Multimodal medical image registration using Particle Swarm Optimization: A review. , 2016, , .		25
79	Neuro-Radiosurgery Treatments: MRI Brain Tumor Seeded Image Segmentation Based on a Cellular Automata Model. Lecture Notes in Computer Science, 2016, , 323-333.	1.0	4
80	Combining split-and-merge and multi-seed region growing algorithms for uterine fibroid segmentation in MRgFUS treatments. Medical and Biological Engineering and Computing, 2016, 54, 1071-1084.	1.6	38
81	Semi-automatic Brain Lesion Segmentation in Gamma Knife Treatments Using an Unsupervised Fuzzy C-Means Clustering Technique. Smart Innovation, Systems and Technologies, 2016, , 15-26.	0.5	9
82	An edge-driven 3D region-growing approach for upper airway morphology and volume evaluation in patients with Pierre Robin sequence. International Journal of Adaptive and Innovative Systems, 2015, 2, 232.	0.1	4
83	Gamma Knife treatment planning: MR brain tumor segmentation and volume measurement based on unsupervised Fuzzy C-Means clustering. International Journal of Imaging Systems and Technology, 2015, 25, 213-225.	2.7	36
84	A fully automatic 2D segmentation method for uterine fibroid in MRgFUS treatment evaluation. Computers in Biology and Medicine, 2015, 62, 277-292.	3.9	30
85	Clinically Interpretable Radiomics-Based Prediction of Histopathologic Response to Neoadjuvant Chemotherapy in High-Grade Serous Ovarian Carcinoma. Frontiers in Oncology, 0, 12, .	1.3	12