Dan Ruan

List of Publications by Year
in descending order

96 papers	1,728 citations	331670 21 h-index	330143 37 g-index
96 all docs	96 docs citations	96 times ranked	1988 citing authors

#	Article	IF	Citations
1	Inter-Phase 4D Cardiac MRI Registration With a Motion Prior Derived From CTA. IEEE Transactions on Biomedical Engineering, 2022, 69, 1828-1836.	4.2	1
2	Technical Note: Air bubble†induced performance degradation in automatic rectum segmentation from cone†beam CT. Medical Physics, 2022, , .	3.0	1
3	Ensemble learning and tensor regularization for cone†beam computed tomography†based pelvic organ segmentation. Medical Physics, 2022, 49, 1660-1672.	3.0	7
4	Rectal Radiation Dose and Clinical Outcomes in Prostate Cancer Patients Treated With Stereotactic Body Radiation Therapy With and Without Hydrogel. Frontiers in Oncology, 2022, 12, 853246.	2.8	3
5	Reformulated McNamara RBE†weighted beam orientation optimization for intensity modulated proton therapy. Medical Physics, 2022, 49, 2136-2149.	3.0	5
6	Voxelwise Prediction of Recurrent High-Grade Glioma via Proximity Estimation†"Coupled Multidimensional Support Vector Machine. International Journal of Radiation Oncology Biology Physics, 2022, 112, 1279-1287.	0.8	2
7	MRA-free intracranial vessel localization on MR vessel wall images. Scientific Reports, 2022, 12, 6240.	3.3	0
8	Linear energy transfer weighted beam orientation optimization for intensity†modulated proton therapy. Medical Physics, 2021, 48, 57-70.	3.0	15
9	ROAD: ROtational direct Aperture optimization with a Decoupled ring-collimator for FLASH radiotherapy. Physics in Medicine and Biology, 2021, 66, 035020.	3.0	8
10	Technical Note: An embedding†based medical note de†identification approach with sparse annotation. Medical Physics, 2021, 48, 1341-1348.	3.0	1
11	Assessment of Toxic Effects Associated With Dose-Fractionated Radiotherapy Among Patients With Cancer and Comorbid Collagen Vascular Disease. JAMA Network Open, 2021, 4, e2034074.	5.9	9
12	Treating Glioblastoma Multiforme (GBM) with super hyperfractionated radiation therapy: Implication of temporal dose fractionation optimization including cancer stem cell dynamics. PLoS ONE, 2021, 16, e0245676.	2.5	8
13	Three†dimensional multipath DenseNet for improving automatic segmentation of glioblastoma on pre†operative multimodal MR images. Medical Physics, 2021, 48, 2859-2866.	3.0	9
14	Enhancing 4d Cardiac Mri Registration Network With A Motion Prior Learned From Coronary Cta. , 2021, , .		4
15	Intracranial Vessel Wall Segmentation For Atherosclerotic Plaque Quantification. , 2021, 2021, 1416-1419.		5
16	Prediction of soft tissue sarcoma response to radiotherapy using longitudinal diffusion MRI and a deep neural network with generative adversarial network†based data augmentation. Medical Physics, 2021, 48, 3262-3372.	3.0	11
17	Scale†adaptive deep network for deformable image registration. Medical Physics, 2021, 48, 3815-3826.	3.0	2
18	Using neural networks to extend cropped medical images for deformable registration among images with differing scan extents. Medical Physics, 2021, 48, 4459-4471.	3.0	1

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19	Radiomics analysis combining unsupervised learning and handcrafted features: A multipleâ€disease study. Medical Physics, 2021, 48, 7003-7015.	3.0	9
20	An Automatic Deep Learningâ€"Based Workflow for Glioblastoma Survival Prediction Using Preoperative Multimodal MR Images: A Feasibility Study. Advances in Radiation Oncology, 2021, 6, 100746.	1.2	14
21	Imposing implicit feasibility constraints on deformable image registration using a statistical generative model. Journal of Medical Imaging, 2021, 7, 064005.	1.5	0
22	Automatic detection and segmentation of multiple brain metastases on magnetic resonance image using asymmetric UNet architecture. Physics in Medicine and Biology, 2021, 66, 015003.	3.0	34
23	Multimodality image registration in the headâ€andâ€neck using a deep learningâ€derived synthetic CT as a bridge. Medical Physics, 2020, 47, 1094-1104.	3.0	28
24	Quantification of fiducial marker visibility for MRI-only prostate radiotherapy simulation. Physics in Medicine and Biology, 2020, 65, 035015.	3.0	3
25	Many-isocenter optimization for robotic radiotherapy. Physics in Medicine and Biology, 2020, 65, 045003.	3.0	5
26	An image regression motion prediction technique for MRIâ€guided radiotherapy evaluated in singleâ€plane cine imaging. Medical Physics, 2020, 47, 404-413.	3.0	10
27	Effect of Radiation Doses to the Heart on Survival for Stereotactic Ablative Radiotherapy for Early-stage Nonâ€"Small-cell Lung Cancer: An Artificial Neural Network Approach. Clinical Lung Cancer, 2020, 21, 136-144.e1.	2.6	9
28	A generative adversarial networkâ€based (GANâ€based) architecture for automatic fiducial marker detection in prostate MRIâ€only radiotherapy simulation images. Medical Physics, 2020, 47, 6405-6413.	3.0	7
29	Fully automated multiorgan segmentation in abdominal magnetic resonance imaging with deep neural networks. Medical Physics, 2020, 47, 4971-4982.	3.0	54
30	Analysis of Geometric Performance and Dosimetric Impact of Using Automatic Contour Segmentation for Radiotherapy Planning. Frontiers in Oncology, 2020, 10, 1762.	2.8	13
31	Clinical Assessment of Prostate Displacement and Planning Target Volume Margins for Stereotactic Body Radiotherapy of Prostate Cancer. Frontiers in Oncology, 2020, 10, 539.	2.8	29
32	A motion prediction confidence estimation framework for predictionâ€based radiotherapy gating. Medical Physics, 2020, 47, 3297-3304.	3.0	3
33	Dosimetric predictors of patient-reported toxicity after prostate stereotactic body radiotherapy: Analysis of full range of the doseâ€"volume histogram using ensemble machine learning. Radiotherapy and Oncology, 2020, 148, 181-188.	0.6	9
34	Enhanced Image Registration With a Network Paradigm and Incorporation of a Deformation Representation Model. , 2020, , .		5
35	Adaptive Locally Low Rank and Sparsity Constrained Reconstruction for Accelerated Dynamic MRI. , 2020, , .		0
36	Treatment effect prediction for sarcoma patients treated with preoperative radiotherapy using radiomics features from longitudinal diffusion-weighted MRIs. Physics in Medicine and Biology, 2020, 65, 175006.	3.0	38

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37	Development and Validation of a Comprehensive Multivariate Dosimetric Model for Predicting Late Genitourinary Toxicity Following Prostate Cancer Stereotactic Body Radiotherapy. Frontiers in Oncology, 2020, 10, 786.	2.8	3
38	Fraction–variant beam orientation optimization for intensity–modulated proton therapy. Medical Physics, 2020, 47, 3826-3834.	3.0	3
39	Generation of abdominal synthetic CTs from 0.35T MR images using generative adversarial networks for MR-only liver radiotherapy. Biomedical Physics and Engineering Express, 2020, 6, 015033.	1.2	29
40	A Phase II Trial of 5-Day Neoadjuvant Radiotherapy for Patients with High-Risk Primary Soft Tissue Sarcoma. Clinical Cancer Research, 2020, 26, 1829-1836.	7.0	63
41	A novel energy layer optimization framework for spot–scanning proton arc therapy. Medical Physics, 2020, 47, 2072-2084.	3.0	27
42	Imposing implicit feasibility constraints on deformable image registration using a statistical generative model. , 2020, , .		3
43	Deformable Image Registration with a Scale-adaptive Convolutional Neural Network. , 2020, , .		2
44	A sparse orthogonal collimator for small animal intensity–modulated radiation therapy part I: Planning system development and commissioning. Medical Physics, 2019, 46, 5703-5713.	3.0	7
45	Robust beam orientation optimization for intensity–modulated proton therapy. Medical Physics, 2019, 46, 3356-3370.	3.0	28
46	Deep learning approaches using 2D and 3D convolutional neural networks for generating male pelvic synthetic computed tomography from magnetic resonance imaging. Medical Physics, 2019, 46, 3788-3798.	3.0	65
47	A convolutional neural network for ultra–low–dose CT denoising and emphysema screening. Medical Physics, 2019, 46, 3941-3950.	3.0	35
48	Automated 4π radiotherapy treatment planning with evolving knowledge–base. Medical Physics, 2019, 46, 3833-3843.	3.0	7
49	Reconstruction of a high–quality volumetric image and a respiratory motion model from patient CBCT projections. Medical Physics, 2019, 46, 3627-3639.	3.0	10
50	Single-arc VMAT optimization for dual-layer MLC. Physics in Medicine and Biology, 2019, 64, 095028.	3.0	5
51	Multislice motion modeling for <scp>MRI</scp>–guided radiotherapy gating. Medical Physics, 2019, 46, 465-474.	3.0	13
52	Robust optimization for intensity–modulated proton therapy with soft spot sensitivity regularization. Medical Physics, 2019, 46, 1408-1425.	3.0	13
53	Ultra–low–dose CT image denoising using modified BM3D scheme tailored to data statistics. Medical Physics, 2019, 46, 190-198.	3.0	52
54	<scp>VMAT</scp> optimization with dynamic collimator rotation. Medical Physics, 2018, 45, 2399-2410.	3.0	15

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55	Potential improvements of lung and prostate MLC tracking investigated by treatment simulations. Medical Physics, 2018, 45, 2218-2229.	3.0	10
56	Integrated beam orientation and scanning‑spot optimization in intensity‑modulated proton therapy for brain and unilateral head and neck tumors. Medical Physics, 2018, 45, 1338-1350.	3.0	45
57	Fraction-variant beam orientation optimization for non-coplanar IMRT. Physics in Medicine and Biology, 2018, 63, 045015.	3.0	17
58	Image denoising in computed tomography using learned discriminative dictionaries. Biomedical Physics and Engineering Express, 2018, 4, 015015.	1.2	0
59	Performance Comparison of Knowledge-Based Dose Prediction Techniques Based on Limited Patient Data. Technology in Cancer Research and Treatment, 2018, 17, 153303381881115.	1.9	9
60	Machine learning and modeling: Data, validation, communication challenges. Medical Physics, 2018, 45, e834-e840.	3.0	67
61	A novel optimization framework for VMAT with dynamic gantry couch rotation. Physics in Medicine and Biology, 2018, 63, 125013.	3.0	25
62	A 2.5D assembly framework to segment high-dimensionality medical images by Bayesian aggregation of parallel 2D CNNs. Biomedical Physics and Engineering Express, 2018, 4, 065014.	1.2	2
63	Fully automatic multi‑organ segmentation for head and neck cancer radiotherapy using shape representation model constrained fully convolutional neural networks. Medical Physics, 2018, 45, 4558-4567.	3.0	164
64	Respiratory motion prediction and prospective correction for free‑breathing arterial spin‑labeled perfusion <scp>MRI</scp> of the kidneys. Medical Physics, 2017, 44, 962-973.	3.0	11
65	Deterministic direct aperture optimization using multiphase piecewise constant segmentation. Medical Physics, 2017, 44, 5596-5609.	3.0	12
66	Abstract WMP31: Integration of MRA and CTA for Brain Aneurysm Follow up. Stroke, 2017, 48, .	2.0	0
67	A robust real-time surface reconstruction method on point clouds captured from a 3D surface photogrammetry system. Medical Physics, 2016, 43, 2353-2360.	3.0	3
68	A comprehensive formulation for volumetric modulated arc therapy planning. Medical Physics, 2016, 43, 4263-4272.	3.0	17
69	Image segmentation with a novel regularized composite shape prior based on surrogate study. Medical Physics, 2016, 43, 2187-2193.	3.0	2
70	A novel software and conceptual design of the hardware platform for intensity modulated radiation therapy. Medical Physics, 2016, 43, 917-929.	3.0	14
71	Two-stage atlas subset selection in multi-atlas based image segmentation. Medical Physics, 2015, 42, 2933-2941.	3.0	7
72	The development and verification of a highly accurate collision prediction model for automated noncoplanar plan delivery. Medical Physics, 2015, 42, 6457-6467.	3.0	53

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73	A continuous surface reconstruction method on point cloud captured from a 3D surface photogrammetry system. Medical Physics, 2015, 42, 6564-6571.	3.0	10
74	Dose domain regularization of MLC leaf patterns for highly complex IMRT plans. Medical Physics, 2015, 42, 1858-1870.	3.0	23
75	Objective function to obtain multiple representative waveforms for a novel helical CT scan protocol. Medical Physics, 2015, 42, 1164-1169.	3.0	5
76	Fast leaf-fitting with generalized underdose/overdose constraints for real-time MLC tracking. Medical Physics, 2015, 43, 465-474.	3.0	7
77	Dependence of Achievable Plan Quality onÂTreatment Technique and Planning Goal Refinement: A Head-and-Neck Intensity Modulated Radiation Therapy Application. International Journal of Radiation Oncology Biology Physics, 2015, 91, 817-824.	0.8	6
78	Correlation of Clinical and Dosimetric Parameters With Radiographic Lung Injury Following Stereotactic Body Radiotherapy. Technology in Cancer Research and Treatment, 2015, 14, 411-418.	1.9	8
79	Separation and reconstruction of BCG and EEG signals during continuous EEG and fMRI recordings. Frontiers in Neuroscience, 2014, 8, 163.	2.8	14
80	Removing ballistocardiogram (BCG) artifact from full-scalp EEG acquired inside the MR scanner with Orthogonal Matching Pursuit (OMP). Frontiers in Neuroscience, 2014, 8, 218.	2.8	17
81	Dose impact in radiographic lung injury following lung SBRT: Statistical analysis and geometric interpretation. Medical Physics, 2014, 41, 031701.	3.0	6
82	Lowâ€complexity atlasâ€based prostate segmentation by combining global, regional, and local metrics. Medical Physics, 2014, 41, 041909.	3.0	16
83	Shapeâ€based motion correction in dynamic contrastâ€enhanced MRI for quantitative assessment of renal function. Medical Physics, 2014, 41, 122302.	3.0	4
84	A Novel Fast Helical 4D-CT Acquisition Technique toÂGenerate Low-Noise Sorting Artifactâ€"Free Images atÂUser-Selected Breathing Phases. International Journal of Radiation Oncology Biology Physics, 2014, 89, 191-198.	0.8	53
85	Feasibility of prostate robotic radiation therapy on conventional C-arm linacs. Practical Radiation Oncology, 2014, 4, 254-260.	2.1	38
86	4Ï€ Non-Coplanar Liver SBRT: A Novel Delivery Technique. International Journal of Radiation Oncology Biology Physics, 2013, 85, 1360-1366.	0.8	133
87	4Ï€ Noncoplanar Stereotactic Body Radiation Therapy for Centrally Located or Larger Lung Tumors. International Journal of Radiation Oncology Biology Physics, 2013, 86, 407-413.	0.8	118
88	Real-time motion estimation with MRI. , 2013, , .		1
89	Integral dose investigation of non-coplanar treatment beam geometries in radiotherapy. Medical Physics, 2013, 41, 011905.	3.0	21
90	Coupled basis learning and regularized reconstruction for BCG artifact removal in simultaneous EEG-FMRI studies. , 2013, , .		7

#	ARTICLE	IF	CITATIONS
91	Measurement-based kilo-voltage beam characterization and dose quantification for radiotherapy image guidance. , 2012, , .		1
92	Dynamic multileaf collimator control for motion adaptive radiotherapy: An optimization approach. , 2011, , .		8
93	Image-Guided Positioning and Tracking. Cancer Journal (Sudbury, Mass), 2011, 17, 155-158.	2.0	9
94	Prospective detection of large prediction errors: a hypothesis testing approach. Physics in Medicine and Biology, 2010, 55, 3885-3904.	3.0	9
95	Directionally selective regularization for sliding preserving medical image registration. , 2009, , .		5
96	Discontinuity preserving regularization for modeling sliding in medical image registration. , 2008, , .		9