Jianrong Dai

List of Publications by Year
in descending order

68 papers	1,324 citations	623734 14 h-index	377865 34 g-index
71 all docs	71 docs citations	71 times ranked	1448 citing authors

#	ARTICLE	IF	CITATIONS
1	A feasible method to evaluate deformable image registration with deep learning–based segmentation. Physica Medica, 2022, 95, 50-56.	0.7	5
2	Predicting machine's performance record using the stacked long short–term memory (LSTM) neural networks. Journal of Applied Clinical Medical Physics, 2022, 23, e13558.	1.9	16
3	Deep learning improves image quality and radiomics reproducibility for high-speed four-dimensional computed tomography reconstruction. Radiotherapy and Oncology, 2022, , .	0.6	3
4	A two-step method to improve image quality of CBCT with phantom-based supervised and patient-based unsupervised learning strategies. Physics in Medicine and Biology, 2022, 67, 084001.	3.0	11
5	Applying pytorch toolkit to plan optimization for circular cone based robotic radiotherapy. Radiation Oncology, 2022, 17, 82.	2.7	1
6	Personalized Modeling to Improve Pseudo–Computed Tomography Images for Magnetic Resonance Imaging–Guided Adaptive Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2022, 113, 885-892.	0.8	5
7	Application of piecewise VMAT technique to whole-brain radiotherapy with simultaneous integrated boost for multiple metastases. Radiation Oncology, 2022, 17, 86.	2.7	3
8	Performance of a multileaf collimator system for a 1.5T MR–linac. Medical Physics, 2021, 48, 546-555.	3.0	7
9	Predicting radiation pneumonitis with fuzzy clustering neural network using 4DCT ventilation image based dosimetric parameters. Quantitative Imaging in Medicine and Surgery, 2021, 11, 4731-4741.	2.0	4
10	Prior information guided auto-contouring of breast gland for deformable image registration in postoperative breast cancer radiotherapy. Quantitative Imaging in Medicine and Surgery, 2021, 11, 4721-4730.	2.0	5
11	Dosimetric comparison of coplanar and noncoplanar beam arrangements for radiotherapy of patients with lung cancer: A meta–analysis. Journal of Applied Clinical Medical Physics, 2021, 22, 34-43.	1.9	2
12	Improving deformable image registration with point metric and masking technique for postoperative breast cancer radiotherapy. Quantitative Imaging in Medicine and Surgery, 2021, 11, 1196-1208.	2.0	7
13	Treatment planning of volumetric modulated arc therapy and positioning optimization for hippocampal–avoidance prophylactic cranial irradiation. Journal of Applied Clinical Medical Physics, 2021, 22, 15-23.	1.9	6
14	DVHnet: A deep learning–based prediction of patient–specific dose volume histograms for radiotherapy planning. Medical Physics, 2021, 48, 2705-2713.	3.0	9
15	Automatic segmentation of three clinical target volumes in radiotherapy using lifelong learning. Radiotherapy and Oncology, 2021, 157, 1-7.	0.6	10
16	A patient risk model to determine the optimal output constancy check frequency for a radiotherapy machine. Physica Medica, 2021, 84, 192-197.	0.7	3
17	A new index for evaluating the fit of dose distribution to target volume: Dose distribution fix index. Medical Dosimetry, 2021, 46, 347-355.	0.9	1
18	Longitudinal Grouping of Target Volumes for Volumetric-Modulated Arc Therapy of Multiple Brain Metastases. Frontiers in Oncology, 2021, 11, 578934.	2.8	2

#	Article	IF	Citations
19	Real-Time Respiratory Tumor Motion Prediction Based on a Temporal Convolutional Neural Network: Prediction Model Development Study. Journal of Medical Internet Research, 2021, 23, e27235.	4.3	8
20	A novel angular dependency model for MatriXX response and its application to true composite dose verification for IMRT plans. Journal of Applied Clinical Medical Physics, 2021, 22, 120-135.	1.9	4
21	Dosiomics-based prediction of radiation-induced hypothyroidism in nasopharyngeal carcinoma patients. Physica Medica, 2021, 89, 219-225.	0.7	15
22	MRI-Only Radiotherapy Planning for Nasopharyngeal Carcinoma Using Deep Learning. Frontiers in Oncology, 2021, 11, 713617.	2.8	7
23	A deep-learning method for generating synthetic kV-CT and improving tumor segmentation for helical tomotherapy of nasopharyngeal carcinoma. Physics in Medicine and Biology, 2021, 66, 224001.	3.0	9
24	A two-layer cylinder phantom developed for film-based isocenter verification of radiotherapy machine. Medical Physics, 2021, 48, 7725-7734.	3.0	1
25	Non-coplanar volumetric modulated arc therapy for locoregional radiotherapy of left-sided breast cancer including internal mammary nodes. Radiology and Oncology, 2021, 55, 499-507.	1.7	6
26	A deep learning method for producing ventilation images from 4DCT: First comparison with technegas SPECT ventilation. Medical Physics, 2020, 47, 1249-1257.	3.0	16
27	Impact of Magnetic Field on Dose Distribution in MR-Guided Radiotherapy of Head and Neck Cancer. Frontiers in Oncology, 2020, 10, 1739.	2.8	10
28	Evaluation of Automatic Segmentation Model With Dosimetric Metrics for Radiotherapy of Esophageal Cancer. Frontiers in Oncology, 2020, 10, 564737.	2.8	17
29	Influence of maximum MLC leaf speed on the quality of volumetric modulated arc therapy plans. Journal of Applied Clinical Medical Physics, 2020, 21, 37-47.	1.9	3
30	A deep learning model to predict dose–volume histograms of organs at risk in radiotherapy treatment plans. Medical Physics, 2020, 47, 5467-5481.	3.0	15
31	A Special Report on 2019 International Planning Competition and a Comprehensive Analysis of Its Results. Frontiers in Oncology, 2020, 10, 571644.	2.8	5
32	Sparing Organs at Risk with Simultaneous Integrated Boost Volumetric Modulated Arc Therapy for Locally Advanced Non-Small Cell Lung Cancer: An Automatic Treatment Planning Study . Cancer Management and Research, 2020, Volume 12, 9643-9653.	1.9	1
33	Accurate method for evaluating the duration of the entire radiotherapy process. Journal of Applied Clinical Medical Physics, 2020, 21, 252-258.	1.9	10
34	Ultrasound-guided intraoperative electron beam radiation therapy: A phantom study. Physica Medica, 2020, 78, 1-7.	0.7	16
35	Managing a radiotherapy center safely and efficiently using risk-adaptive strategies during coronavirus disease pandemic: Experience from national cancer center of China. Radiotherapy and Oncology, 2020, 148, 243-244.	0.6	6
36	Personalized setting of plan parameters using feasibility dose volume histogram for auto-planning in Pinnacle system. Journal of Applied Clinical Medical Physics, 2020, 21, 119-127.	1.9	18

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37	A practical method for predicting patientâ€specific collision in radiotherapy. Journal of Applied Clinical Medical Physics, 2020, 21, 65-72.	1.9	6
38	Four-Dimensional Cone-Beam Computed Tomography Image Compression Using Video Encoder for Radiotherapy. Journal of Digital Imaging, 2020, 33, 1292-1300.	2.9	0
39	CNN-Based Quality Assurance for Automatic Segmentation of Breast Cancer in Radiotherapy. Frontiers in Oncology, 2020, 10, 524.	2.8	35
40	A longitudinal evaluation of improvements in treatment plan quality for lung cancer with volumetric modulated arc therapy. Journal of Applied Clinical Medical Physics, 2020, 21, 33-43.	1.9	1
41	A survey on the current clinical application and practice of helical tomotherapy in mainland China. Journal of Radiotherapy in Practice, 2019, 18, 375-382.	0.5	1
42	Long-Term Survival and Late Toxicity Associated With Pelvic Intensity Modulated Radiation Therapy (IMRT) for Cervical Cancer Involving CT-Based Positive Lymph Nodes. Frontiers in Oncology, 2019, 9, 520.	2.8	19
43	A new homogeneity index definition for evaluation of radiotherapy plans. Journal of Applied Clinical Medical Physics, 2019, 20, 50-56.	1.9	18
44	Exploring correlation information for image compression of four-dimensional computed tomography. Quantitative Imaging in Medicine and Surgery, 2019, 9, 1270-1277.	2.0	2
45	Dosiomics: Extracting 3D Spatial Features From Dose Distribution to Predict Incidence of Radiation Pneumonitis. Frontiers in Oncology, 2019, 9, 269.	2.8	99
46	A deep learning method for prediction of threeâ€dimensional dose distribution of helical tomotherapy. Medical Physics, 2019, 46, 1972-1983.	3.0	72
47	Comparison of 2 methods for prediction of liver dosimetric indices in hepatocellular cancer IMRT planning. Medical Dosimetry, 2019, 44, e80-e85.	0.9	1
48	Selection of prescription isodose line for brain metastases treated with volumetric modulated arc radiotherapy. Journal of Applied Clinical Medical Physics, 2019, 20, 63-69.	1.9	8
49	Deep Learning Improved Clinical Target Volume Contouring Quality and Efficiency for Postoperative Radiation Therapy in Non-small Cell Lung Cancer. Frontiers in Oncology, 2019, 9, 1192.	2.8	35
50	A study of nonuniform CTV to PTV margin expansion incorporating both rotational and translational uncertainties. Journal of Applied Clinical Medical Physics, 2019, 20, 78-86.	1.9	15
51	Selecting noncoplanar beam directions in a patient coordinate system for radiotherapy planning. Medical Dosimetry, 2019, 44, 279-283.	0.9	0
52	A feasibility study on an automated method to generate patientâ€specific dose distributions for radiotherapy using deep learning. Medical Physics, 2019, 46, 56-64.	3.0	124
53	Locoregional irradiation including internal mammary nodal region for left-sided breast cancer after breast conserving surgery: Dosimetric evaluation of 4 techniques. Medical Dosimetry, 2019, 44, e13-e18.	0.9	15
54	A comprehensive evaluation of angular range and separation on image quality, image registration, and imaging dose for cone beam computed tomography in radiotherapy. Medical Dosimetry, 2019, 44, 67-73.	0.9	3

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55	Prediction of Radiation Pneumonitis With Dose Distribution: A Convolutional Neural Network (CNN) Based Model. Frontiers in Oncology, 2019, 9, 1500.	2.8	40
56	Quantitative analysis of image quality for acceptance and commissioning of an <scp>MRI</scp> simulator with a semiautomatic method. Journal of Applied Clinical Medical Physics, 2018, 19, 326-335.	1.9	3
57	Evaluation of MLC leaf transmission on IMRT treatment plan quality of patients with advanced lung cancer. Medical Dosimetry, 2018, 43, 313-318.	0.9	7
58	A feasible study on using multiplexed sensitivity-encoding to reduce geometric distortion in diffusion-weighted echo planar imaging. Magnetic Resonance Imaging, 2018, 54, 153-159.	1.8	8
59	Fully automatic and robust segmentation of the clinical target volume for radiotherapy of breast cancer using big data and deep learning. Physica Medica, 2018, 50, 13-19.	0.7	121
60	Dosimetric impact of hysteresis on lung cancer tomotherapy: A moving phantom study. Physica Medica, 2018, 49, 40-46.	0.7	2
61	Dual-energy imaging method to improve the image quality and the accuracy of dose calculation for cone-beam computed tomography. Physica Medica, 2017, 36, 110-118.	0.7	13
62	Automatic segmentation of the clinical target volume and organs at risk in the planning <scp>CT</scp> for rectal cancer using deep dilated convolutional neural networks. Medical Physics, 2017, 44, 6377-6389.	3.0	241
63	Reducing dose to the lungs through loosing target dose homogeneity requirement for radiotherapy of non small cell lung cancer. Journal of Applied Clinical Medical Physics, 2017, 18, 169-176.	1.9	5
64	Influence of tumor location on the intensity-modulated radiation therapy plan of helical tomotherapy. Medical Dosimetry, 2017, 42, 334-340.	0.9	2
65	A Projection Quality-Driven Tube Current Modulation Method in Cone-Beam CT for IGRT: Proof of Concept. Technology in Cancer Research and Treatment, 2017, 16, 1179-1186.	1.9	1
66	Deep Deconvolutional Neural Network for Target Segmentation of Nasopharyngeal Cancer in Planning Computed Tomography Images. Frontiers in Oncology, 2017, 7, 315.	2.8	157
67	Methodology for Registration of Shrinkage Tumors in Head-and-Neck CT Studies. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-9.	1.3	0
68	Determining leaf trajectories for dynamic multileaf collimators with consideration of marker visibility: an algorithm study. Journal of Radiation Research, 2014, 55, 976-987.	1.6	3