

Jianrong Dai

List of Publications by Year in descending order

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68
papers

1,324
citations

623188

14
h-index

377514

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. <i>Physica Medica</i> , 2022, 95, 50-56.	0.4	5
2	Predicting machine's performance record using the stacked long short-term memory (LSTM) neural networks. <i>Journal of Applied Clinical Medical Physics</i> , 2022, 23, e13558.	0.8	16
3	Deep learning improves image quality and radiomics reproducibility for high-speed four-dimensional computed tomography reconstruction. <i>Radiotherapy and Oncology</i> , 2022, , .	0.3	3
4	A two-step method to improve image quality of CBCT with phantom-based supervised and patient-based unsupervised learning strategies. <i>Physics in Medicine and Biology</i> , 2022, 67, 084001.	1.6	11
5	Applying pytorch toolkit to plan optimization for circular cone based robotic radiotherapy. <i>Radiation Oncology</i> , 2022, 17, 82.	1.2	1
6	Personalized Modeling to Improve Pseudo-Computed Tomography Images for Magnetic Resonance Imaging-Guided Adaptive Radiation Therapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2022, 113, 885-892.	0.4	5
7	Application of piecewise VMAT technique to whole-brain radiotherapy with simultaneous integrated boost for multiple metastases. <i>Radiation Oncology</i> , 2022, 17, 86.	1.2	3
8	Performance of a multileaf collimator system for a 1.5T MR-linac. <i>Medical Physics</i> , 2021, 48, 546-555.	1.6	7
9	Predicting radiation pneumonitis with fuzzy clustering neural network using 4DCT ventilation image based dosimetric parameters. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 4731-4741.	1.1	4
10	Prior information guided auto-contouring of breast gland for deformable image registration in postoperative breast cancer radiotherapy. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 4721-4730.	1.1	5
11	Dosimetric comparison of coplanar and noncoplanar beam arrangements for radiotherapy of patients with lung cancer: A meta-analysis. <i>Journal of Applied Clinical Medical Physics</i> , 2021, 22, 34-43.	0.8	2
12	Improving deformable image registration with point metric and masking technique for postoperative breast cancer radiotherapy. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 1196-1208.	1.1	7
13	Treatment planning of volumetric modulated arc therapy and positioning optimization for hippocampal avoidance prophylactic cranial irradiation. <i>Journal of Applied Clinical Medical Physics</i> , 2021, 22, 15-23.	0.8	6
14	DVHnet: A deep learning-based prediction of patient-specific dose volume histograms for radiotherapy planning. <i>Medical Physics</i> , 2021, 48, 2705-2713.	1.6	9
15	Automatic segmentation of three clinical target volumes in radiotherapy using lifelong learning. <i>Radiotherapy and Oncology</i> , 2021, 157, 1-7.	0.3	10
16	A patient risk model to determine the optimal output constancy check frequency for a radiotherapy machine. <i>Physica Medica</i> , 2021, 84, 192-197.	0.4	3
17	A new index for evaluating the fit of dose distribution to target volume: Dose distribution fix index. <i>Medical Dosimetry</i> , 2021, 46, 347-355.	0.4	1
18	Longitudinal Grouping of Target Volumes for Volumetric-Modulated Arc Therapy of Multiple Brain Metastases. <i>Frontiers in Oncology</i> , 2021, 11, 578934.	1.3	2

#	ARTICLE	IF	CITATIONS
19	Real-Time Respiratory Tumor Motion Prediction Based on a Temporal Convolutional Neural Network: Prediction Model Development Study. <i>Journal of Medical Internet Research</i> , 2021, 23, e27235.	2.1	8
20	A novel angular dependency model for MatriXX response and its application to true composite dose verification for IMRT plans. <i>Journal of Applied Clinical Medical Physics</i> , 2021, 22, 120-135.	0.8	4
21	Dosimics-based prediction of radiation-induced hypothyroidism in nasopharyngeal carcinoma patients. <i>Physica Medica</i> , 2021, 89, 219-225.	0.4	15
22	MRI-Only Radiotherapy Planning for Nasopharyngeal Carcinoma Using Deep Learning. <i>Frontiers in Oncology</i> , 2021, 11, 713617.	1.3	7
23	A deep-learning method for generating synthetic kV-CT and improving tumor segmentation for helical tomotherapy of nasopharyngeal carcinoma. <i>Physics in Medicine and Biology</i> , 2021, 66, 224001.	1.6	9
24	A two-layer cylinder phantom developed for film-based isocenter verification of radiotherapy machine. <i>Medical Physics</i> , 2021, 48, 7725-7734.	1.6	1
25	Non-coplanar volumetric modulated arc therapy for locoregional radiotherapy of left-sided breast cancer including internal mammary nodes. <i>Radiology and Oncology</i> , 2021, 55, 499-507.	0.6	6
26	A deep learning method for producing ventilation images from 4DCT: First comparison with technegas SPECT ventilation. <i>Medical Physics</i> , 2020, 47, 1249-1257.	1.6	16
27	Impact of Magnetic Field on Dose Distribution in MR-Guided Radiotherapy of Head and Neck Cancer. <i>Frontiers in Oncology</i> , 2020, 10, 1739.	1.3	10
28	Evaluation of Automatic Segmentation Model With Dosimetric Metrics for Radiotherapy of Esophageal Cancer. <i>Frontiers in Oncology</i> , 2020, 10, 564737.	1.3	17
29	Influence of maximum MLC leaf speed on the quality of volumetric modulated arc therapy plans. <i>Journal of Applied Clinical Medical Physics</i> , 2020, 21, 37-47.	0.8	3
30	A deep learning model to predict dose-volume histograms of organs at risk in radiotherapy treatment plans. <i>Medical Physics</i> , 2020, 47, 5467-5481.	1.6	15
31	A Special Report on 2019 International Planning Competition and a Comprehensive Analysis of Its Results. <i>Frontiers in Oncology</i> , 2020, 10, 571644.	1.3	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. <i>Cancer Management and Research</i> , 2020, Volume 12, 9643-9653.	0.9	1
33	Accurate method for evaluating the duration of the entire radiotherapy process. <i>Journal of Applied Clinical Medical Physics</i> , 2020, 21, 252-258.	0.8	10
34	Ultrasound-guided intraoperative electron beam radiation therapy: A phantom study. <i>Physica Medica</i> , 2020, 78, 1-7.	0.4	16
35	Managing a radiotherapy center safely and efficiently using risk-adaptive strategies during coronavirus disease pandemic: Experience from national cancer center of China. <i>Radiation Therapy and Oncology</i> , 2020, 148, 243-244.	0.3	6
36	Personalized setting of plan parameters using feasibility dose volume histogram for auto-planning in Pinnacle system. <i>Journal of Applied Clinical Medical Physics</i> , 2020, 21, 119-127.	0.8	18

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37	A practical method for predicting patient-specific collision in radiotherapy. <i>Journal of Applied Clinical Medical Physics</i> , 2020, 21, 65-72.	0.8	6
38	Four-Dimensional Cone-Beam Computed Tomography Image Compression Using Video Encoder for Radiotherapy. <i>Journal of Digital Imaging</i> , 2020, 33, 1292-1300.	1.6	0
39	CNN-Based Quality Assurance for Automatic Segmentation of Breast Cancer in Radiotherapy. <i>Frontiers in Oncology</i> , 2020, 10, 524.	1.3	35
40	A longitudinal evaluation of improvements in treatment plan quality for lung cancer with volumetric modulated arc therapy. <i>Journal of Applied Clinical Medical Physics</i> , 2020, 21, 33-43.	0.8	1
41	A survey on the current clinical application and practice of helical tomotherapy in mainland China. <i>Journal of Radiotherapy in Practice</i> , 2019, 18, 375-382.	0.2	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. <i>Frontiers in Oncology</i> , 2019, 9, 520.	1.3	19
43	A new homogeneity index definition for evaluation of radiotherapy plans. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 50-56.	0.8	18
44	Exploring correlation information for image compression of four-dimensional computed tomography. <i>Quantitative Imaging in Medicine and Surgery</i> , 2019, 9, 1270-1277.	1.1	2
45	Dosimics: Extracting 3D Spatial Features From Dose Distribution to Predict Incidence of Radiation Pneumonitis. <i>Frontiers in Oncology</i> , 2019, 9, 269.	1.3	99
46	A deep learning method for prediction of three-dimensional dose distribution of helical tomotherapy. <i>Medical Physics</i> , 2019, 46, 1972-1983.	1.6	72
47	Comparison of 2 methods for prediction of liver dosimetric indices in hepatocellular cancer IMRT planning. <i>Medical Dosimetry</i> , 2019, 44, e80-e85.	0.4	1
48	Selection of prescription isodose line for brain metastases treated with volumetric modulated arc radiotherapy. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 63-69.	0.8	8
49	Deep Learning Improved Clinical Target Volume Contouring Quality and Efficiency for Postoperative Radiation Therapy in Non-small Cell Lung Cancer. <i>Frontiers in Oncology</i> , 2019, 9, 1192.	1.3	35
50	A study of nonuniform CTV to PTV margin expansion incorporating both rotational and translational uncertainties. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 78-86.	0.8	15
51	Selecting noncoplanar beam directions in a patient coordinate system for radiotherapy planning. <i>Medical Dosimetry</i> , 2019, 44, 279-283.	0.4	0
52	A feasibility study on an automated method to generate patient-specific dose distributions for radiotherapy using deep learning. <i>Medical Physics</i> , 2019, 46, 56-64.	1.6	124
53	Locoregional irradiation including internal mammary nodal region for left-sided breast cancer after breast conserving surgery: Dosimetric evaluation of 4 techniques. <i>Medical Dosimetry</i> , 2019, 44, e13-e18.	0.4	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. <i>Medical Dosimetry</i> , 2019, 44, 67-73.	0.4	3

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55	Prediction of Radiation Pneumonitis With Dose Distribution: A Convolutional Neural Network (CNN) Based Model. <i>Frontiers in Oncology</i> , 2019, 9, 1500.	1.3	40
56	Quantitative analysis of image quality for acceptance and commissioning of an <scp>MRI</scp> simulator with a semiautomatic method. <i>Journal of Applied Clinical Medical Physics</i> , 2018, 19, 326-335.	0.8	3
57	Evaluation of MLC leaf transmission on IMRT treatment plan quality of patients with advanced lung cancer. <i>Medical Dosimetry</i> , 2018, 43, 313-318.	0.4	7
58	A feasible study on using multiplexed sensitivity-encoding to reduce geometric distortion in diffusion-weighted echo planar imaging. <i>Magnetic Resonance Imaging</i> , 2018, 54, 153-159.	1.0	8
59	Fully automatic and robust segmentation of the clinical target volume for radiotherapy of breast cancer using big data and deep learning. <i>Physica Medica</i> , 2018, 50, 13-19.	0.4	121
60	Dosimetric impact of hysteresis on lung cancer tomotherapy: A moving phantom study. <i>Physica Medica</i> , 2018, 49, 40-46.	0.4	2
61	Dual-energy imaging method to improve the image quality and the accuracy of dose calculation for cone-beam computed tomography. <i>Physica Medica</i> , 2017, 36, 110-118.	0.4	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. <i>Medical Physics</i> , 2017, 44, 6377-6389.	1.6	241
63	Reducing dose to the lungs through loosening target dose homogeneity requirement for radiotherapy of non small cell lung cancer. <i>Journal of Applied Clinical Medical Physics</i> , 2017, 18, 169-176.	0.8	5
64	Influence of tumor location on the intensity-modulated radiation therapy plan of helical tomotherapy. <i>Medical Dosimetry</i> , 2017, 42, 334-340.	0.4	2
65	A Projection Quality-Driven Tube Current Modulation Method in Cone-Beam CT for IGRT: Proof of Concept. <i>Technology in Cancer Research and Treatment</i> , 2017, 16, 1179-1186.	0.8	1
66	Deep Deconvolutional Neural Network for Target Segmentation of Nasopharyngeal Cancer in Planning Computed Tomography Images. <i>Frontiers in Oncology</i> , 2017, 7, 315.	1.3	157
67	Methodology for Registration of Shrinkage Tumors in Head-and-Neck CT Studies. <i>Computational and Mathematical Methods in Medicine</i> , 2015, 2015, 1-9.	0.7	0
68	Determining leaf trajectories for dynamic multileaf collimators with consideration of marker visibility: an algorithm study. <i>Journal of Radiation Research</i> , 2014, 55, 976-987.	0.8	3