

Jianrong Dai

List of Publications by Year in descending order

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Version: 2024-02-01

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	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
2	Deep Deconvolutional Neural Network for Target Segmentation of Nasopharyngeal Cancer in Planning Computed Tomography Images. Frontiers in Oncology, 2017, 7, 315.	2.8	157
3	A feasibility study on an automated method to generate patient-specific dose distributions for radiotherapy using deep learning. Medical Physics, 2019, 46, 56-64.	3.0	124
4	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
5	Dosimics: Extracting 3D Spatial Features From Dose Distribution to Predict Incidence of Radiation Pneumonitis. Frontiers in Oncology, 2019, 9, 269.	2.8	99
6	A deep learning method for prediction of three-dimensional dose distribution of helical tomotherapy. Medical Physics, 2019, 46, 1972-1983.	3.0	72
7	Prediction of Radiation Pneumonitis With Dose Distribution: A Convolutional Neural Network (CNN) Based Model. Frontiers in Oncology, 2019, 9, 1500.	2.8	40
8	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
9	CNN-Based Quality Assurance for Automatic Segmentation of Breast Cancer in Radiotherapy. Frontiers in Oncology, 2020, 10, 524.	2.8	35
10	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
11	A new homogeneity index definition for evaluation of radiotherapy plans. Journal of Applied Clinical Medical Physics, 2019, 20, 50-56.	1.9	18
12	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
13	Evaluation of Automatic Segmentation Model With Dosimetric Metrics for Radiotherapy of Esophageal Cancer. Frontiers in Oncology, 2020, 10, 564737.	2.8	17
14	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
15	Ultrasound-guided intraoperative electron beam radiation therapy: A phantom study. Physica Medica, 2020, 78, 1-7.	0.7	16
16	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
17	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
18	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

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19	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.	3.0	15
20	Dosimetry-based prediction of radiation-induced hypothyroidism in nasopharyngeal carcinoma patients. <i>Physica Medica</i> , 2021, 89, 219-225.	0.7	15
21	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.	0.7	13
22	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.	3.0	11
23	Impact of Magnetic Field on Dose Distribution in MR-Guided Radiotherapy of Head and Neck Cancer. <i>Frontiers in Oncology</i> , 2020, 10, 1739.	2.8	10
24	Accurate method for evaluating the duration of the entire radiotherapy process. <i>Journal of Applied Clinical Medical Physics</i> , 2020, 21, 252-258.	1.9	10
25	Automatic segmentation of three clinical target volumes in radiotherapy using lifelong learning. <i>Radiotherapy and Oncology</i> , 2021, 157, 1-7.	0.6	10
26	DVHnet: A deep learning-based prediction of patient-specific dose volume histograms for radiotherapy planning. <i>Medical Physics</i> , 2021, 48, 2705-2713.	3.0	9
27	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.	3.0	9
28	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.	1.8	8
29	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.	1.9	8
30	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.	4.3	8
31	Evaluation of MLC leaf transmission on IMRT treatment plan quality of patients with advanced lung cancer. <i>Medical Dosimetry</i> , 2018, 43, 313-318.	0.9	7
32	Performance of a multileaf collimator system for a 1.5T MR-linac. <i>Medical Physics</i> , 2021, 48, 546-555.	3.0	7
33	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.	2.0	7
34	MRI-Only Radiotherapy Planning for Nasopharyngeal Carcinoma Using Deep Learning. <i>Frontiers in Oncology</i> , 2021, 11, 713617.	2.8	7
35	Managing a radiotherapy center safely and efficiently using risk-adaptive strategies during coronavirus disease pandemic: Experience from national cancer center of China. <i>Radiotherapy and Oncology</i> , 2020, 148, 243-244.	0.6	6
36	A practical method for predicting patient-specific collision in radiotherapy. <i>Journal of Applied Clinical Medical Physics</i> , 2020, 21, 65-72.	1.9	6

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37	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.	1.9	6
38	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.	1.7	6
39	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.	1.9	5
40	A Special Report on 2019 International Planning Competition and a Comprehensive Analysis of Its Results. <i>Frontiers in Oncology</i> , 2020, 10, 571644.	2.8	5
41	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.	2.0	5
42	A feasible method to evaluate deformable image registration with deep learning-based segmentation. <i>Physica Medica</i> , 2022, 95, 50-56.	0.7	5
43	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.	0.8	5
44	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.	2.0	4
45	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.	1.9	4
46	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.	1.6	3
47	Quantitative analysis of image quality for acceptance and commissioning of an MRI simulator with a semiautomatic method. <i>Journal of Applied Clinical Medical Physics</i> , 2018, 19, 326-335.	1.9	3
48	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.	0.9	3
49	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.	1.9	3
50	A patient risk model to determine the optimal output constancy check frequency for a radiotherapy machine. <i>Physica Medica</i> , 2021, 84, 192-197.	0.7	3
51	Deep learning improves image quality and radiomics reproducibility for high-speed four-dimensional computed tomography reconstruction. <i>Radiotherapy and Oncology</i> , 2022, , .	0.6	3
52	Application of piecewise VMAT technique to whole-brain radiotherapy with simultaneous integrated boost for multiple metastases. <i>Radiation Oncology</i> , 2022, 17, 86.	2.7	3
53	Influence of tumor location on the intensity-modulated radiation therapy plan of helical tomotherapy. <i>Medical Dosimetry</i> , 2017, 42, 334-340.	0.9	2
54	Dosimetric impact of hysteresis on lung cancer tomotherapy: A moving phantom study. <i>Physica Medica</i> , 2018, 49, 40-46.	0.7	2

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55	Exploring correlation information for image compression of four-dimensional computed tomography. Quantitative Imaging in Medicine and Surgery, 2019, 9, 1270-1277.	2.0	2
56	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
57	Longitudinal Grouping of Target Volumes for Volumetric-Modulated Arc Therapy of Multiple Brain Metastases. Frontiers in Oncology, 2021, 11, 578934.	2.8	2
58	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
59	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
60	Comparison of 2 methods for prediction of liver dosimetric indices in hepatocellular cancer IMRT planning. Medical Dosimetry, 2019, 44, e80-e85.	0.9	1
61	<p>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</p>. Cancer Management and Research, 2020, Volume 12, 9643-9653.	1.9	1
62	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
63	A new index for evaluating the fit of dose distribution to target volume: Dose distribution fit index. Medical Dosimetry, 2021, 46, 347-355.	0.9	1
64	A two-layer cylinder phantom developed for film-based isocenter verification of radiotherapy machine. Medical Physics, 2021, 48, 7725-7734.	3.0	1
65	Applying pytorch toolkit to plan optimization for circular cone based robotic radiotherapy. Radiation Oncology, 2022, 17, 82.	2.7	1
66	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
67	Selecting noncoplanar beam directions in a patient coordinate system for radiotherapy planning. Medical Dosimetry, 2019, 44, 279-283.	0.9	0
68	Four-Dimensional Cone-Beam Computed Tomography Image Compression Using Video Encoder for Radiotherapy. Journal of Digital Imaging, 2020, 33, 1292-1300.	2.9	0