Steve Jiang

List of Publications by Year in descending order

72 papers	2,121 citations	257450 24 h-index	254184 43 g-index
73 all docs	73 docs citations	73 times ranked	2071 citing authors

#	Article	IF	Citations
1	3D radiotherapy dose prediction on head and neck cancer patients with a hierarchically densely connected U-net deep learning architecture. Physics in Medicine and Biology, 2019, 64, 065020.	3.0	204
2	A feasibility study for predicting optimal radiation therapy dose distributions of prostate cancer patients from patient anatomy using deep learning. Scientific Reports, 2019, 9, 1076.	3.3	181
3	Generating synthesized computed tomography (CT) from cone-beam computed tomography (CBCT) using CycleGAN for adaptive radiation therapy. Physics in Medicine and Biology, 2019, 64, 125002.	3.0	170
4	Threeâ€dimensional dose prediction for lung IMRT patients with deep neural networks: robust learning from heterogeneous beam configurations. Medical Physics, 2019, 46, 3679-3691.	3.0	115
5	Synthetic CT generation from CBCT images via deep learning. Medical Physics, 2020, 47, 1115-1125.	3.0	109
6	MRI-only brain radiotherapy: Assessing the dosimetric accuracy of synthetic CT images generated using a deep learning approach. Radiotherapy and Oncology, 2019, 136, 56-63.	0.6	105
7	Fully automated organ segmentation in male pelvic CT images. Physics in Medicine and Biology, 2018, 63, 245015.	3.0	97
8	Combining many-objective radiomics and 3D convolutional neural network through evidential reasoning to predict lymph node metastasis in head and neck cancer. Physics in Medicine and Biology, 2019, 64, 075011.	3.0	74
9	Segmentation of the prostate and organs at risk in male pelvic CT images using deep learning. Biomedical Physics and Engineering Express, 2018, 4, 055003.	1.2	65
10	Predicting lung nodule malignancies by combining deep convolutional neural network and handcrafted features. Physics in Medicine and Biology, 2019, 64, 175012.	3.0	51
11	Super-Resolution 1H Magnetic Resonance Spectroscopic Imaging Utilizing Deep Learning. Frontiers in Oncology, 2019, 9, 1010.	2.8	49
12	Dose prediction with deep learning for prostate cancer radiation therapy: Model adaptation to different treatment planning practices. Radiotherapy and Oncology, 2020, 153, 228-235.	0.6	45
13	Accurate real time localization tracking in a clinical environment using Bluetooth Low Energy and deep learning. PLoS ONE, 2018, 13, e0205392.	2.5	43
14	Incorporating human and learned domain knowledge into training deep neural networks: A differentiable doseâ€volume histogram and adversarial inspired framework for generating Pareto optimal dose distributions in radiation therapy. Medical Physics, 2020, 47, 837-849.	3.0	40
15	Predicting distant failure in early stage NSCLC treated with SBRT using clinical parameters. Radiotherapy and Oncology, 2016, 119, 501-504.	0.6	39
16	Minimal mask immobilization with optical surface guidance for head and neck radiotherapy. Journal of Applied Clinical Medical Physics, 2018, 19, 17-24.	1.9	39
17	Dosimetric evaluation of synthetic CT generated with GANs for MRIâ€only proton therapy treatment planning of brain tumors. Journal of Applied Clinical Medical Physics, 2020, 21, 76-86.	1.9	35
18	Technical Note: A feasibility study on deep learningâ€based radiotherapy dose calculation. Medical Physics, 2020, 47, 753-758.	3.0	33

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19	A deep learning-based framework for segmenting invisible clinical target volumes with estimated uncertainties for post-operative prostate cancer radiotherapy. Medical Image Analysis, 2021, 72, 102101.	11.6	32
20	Z-Index Parameterization for Volumetric CT Image Reconstruction via 3-D Dictionary Learning. IEEE Transactions on Medical Imaging, 2017, 36, 2466-2478.	8.9	31
21	Dosimetric benefit of adaptive re-planning in pancreatic cancer stereotactic body radiotherapy. Medical Dosimetry, 2015, 40, 318-324.	0.9	30
22	Predicting Lymph Node Metastasis in Head and Neck Cancer by Combining Many-objective Radiomics and 3-dimensioal Convolutional Neural Network through Evidential Reasoning. , 2018, 2018, 1-4.		29
23	Investigating rectal toxicity associated dosimetric features with deformable accumulated rectal surface dose maps for cervical cancer radiotherapy. Radiation Oncology, 2018, 13, 125.	2.7	29
24	Three-dimensional printer-aided casting of soft, custom silicone boluses (SCSBs) for head and neck radiation therapy. Practical Radiation Oncology, 2018, 8, e167-e174.	2.1	25
25	A recursive ensemble organ segmentation (REOS) framework: application in brain radiotherapy. Physics in Medicine and Biology, 2019, 64, 025015.	3.0	25
26	Multi-Objective-Based Radiomic Feature Selection for Lesion Malignancy Classification. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 194-204.	6.3	24
27	PSA-Net: Deep learningâ€“based physician styleâ€“aware segmentation network for postoperative prostate cancer clinical target volumes. Artificial Intelligence in Medicine, 2021, 121, 102195.	6.5	24
28	Technical Note: Deriving ventilation imaging from 4DCTby deep convolutional neural network. Medical Physics, 2019, 46, 2323-2329.	3.0	23
29	A pilot study using kernelled support tensor machine for distant failure prediction in lung SBRT. Medical Image Analysis, 2018, 50, 106-116.	11.6	22
30	The Role of Hypofractionated Radiation Therapy with Photons, Protons, and Heavy Ions for Treating Extracranial Lesions. Frontiers in Oncology, 2015, 5, 302.	2.8	20
31	Boosting radiotherapy dose calculation accuracy with deep learning. Journal of Applied Clinical Medical Physics, 2020, 21, 149-159.	1.9	20
32	Deep Learningâ€“Based COVID-19 Pneumonia Classification Using Chest CT Images: Model Generalizability. Frontiers in Artificial Intelligence, 2021, 4, 694875.	3.4	19
33	A fast deep learning approach for beam orientation optimization for prostate cancer treated with intensityâ€modulated radiation therapy. Medical Physics, 2020, 47, 880-897.	3.0	18
34	Using deep learning to predict beamâ€tunable Pareto optimal dose distribution for intensityâ€modulated radiation therapy. Medical Physics, 2020, 47, 3898-3912.	3.0	16
35	Multifaceted radiomics for distant metastasis prediction in head & neck cancer. Physics in Medicine and Biology, 2020, 65, 155009.	3.0	16
36	Improving proton dose calculation accuracy by using deep learning. Machine Learning: Science and Technology, 2021, 2, 015017.	5.0	16

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37	Intentional deep overfit learning (IDOL): A novel deep learning strategy for adaptive radiation therapy. Medical Physics, 2022, 49, 488-496.	3.0	16
38	Synthesizing CT images from MR images with deep learning: model generalization for different datasets through transfer learning. Biomedical Physics and Engineering Express, 2021, 7, 025020.	1.2	15
39	Automated Text Message Reminders Improve Radiation Therapy Compliance. International Journal of Radiation Oncology Biology Physics, 2019, 103, 1045-1052.	0.8	13
40	Deep learning can accelerate and quantify simulated localized correlated spectroscopy. Scientific Reports, 2021, 11, 8727.	3.3	13
41	Generating Pareto Optimal Dose Distributions for Radiation Therapy Treatment Planning. Lecture Notes in Computer Science, 2019, , 59-67.	1.3	13
42	Threshold-driven optimization for reference-based auto-planning. Physics in Medicine and Biology, 2018, 63, 04NT01.	3.0	12
43	Flattening filter free in intensityâ€modulated radiotherapy (IMRT) â€“ Theoretical modeling with delivery efficiency analysis. Medical Physics, 2019, 46, 34-44.	3.0	11
44	A feasibility study on deep learningâ€based individualized 3D dose distribution prediction. Medical Physics, 2021, 48, 4438-4447.	3.0	10
45	Siteâ€agnostic 3D dose distribution prediction with deep learning neural networks. Medical Physics, 2022, 49, 1391-1406.	3.0	10
46	An Automated Treatment Plan Quality Control Tool for Intensity-Modulated Radiation Therapy Using a Voxel-Weighting Factor-Based Re-Optimization Algorithm. PLoS ONE, 2016, 11, e0149273.	2.5	9
47	Continuous leaf optimization for IMRT leaf sequencing. Medical Physics, 2016, 43, 5403-5411.	3.0	8
48	Mining Domain Knowledge: Improved Framework Towards Automatically Standardizing Anatomical Structure Nomenclature in Radiotherapy. IEEE Access, 2020, 8, 105286-105300.	4.2	8
49	Cone-Beam Computed Tomography (CBCT) Segmentation by Adversarial Learning Domain Adaptation. Lecture Notes in Computer Science, 2019, , 567-575.	1.3	7
50	Electron modulated arc therapy (EMAT) using photon MLC for postmastectomy chest wall treatment I: Monte Carlo-based dosimetric characterizations. Physica Medica, 2019, 67, 1-8.	0.7	6
51	Deep-learning based surface region selection for deep inspiration breath hold (DIBH) monitoring in left breast cancer radiotherapy. Physics in Medicine and Biology, 2018, 63, 245013.	3.0	5
52	Contact Tracing in Healthcare Settings During the COVID-19 Pandemic Using Bluetooth Low Energy and Artificial Intelligenceâ€"A Viewpoint. Frontiers in Artificial Intelligence, 2021, 4, 666599.	3.4	5
53	Individualized 3D Dose Distribution Prediction Using Deep Learning. Lecture Notes in Computer Science, 2019, , 110-118.	1.3	5
54	A Novel Deep Learning Framework for Standardizing the Label of OARs in CT. Lecture Notes in Computer Science, 2019, , 52-60.	1.3	5

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55	Cardiac dosimetric evaluation of deep inspiration breath-hold level variances using computed tomography scans generated from deformable image registration displacement vectors. Medical Dosimetry, 2016, 41, 22-27.	0.9	4
56	Mid-range probingâ€"towards range-guided particle therapy. Physics in Medicine and Biology, 2018, 63, 13NT01.	3.0	4
57	Reliable lymph node metastasis prediction in head & neck cancer through automated multi-objective model. , 2019, , .		4
58	Development of a realâ€time indoor location system using bluetooth low energy technology and deep learning to facilitate clinical applications. Medical Physics, 2020, 47, 3277-3285.	3.0	4
59	International Symposium on Ion Therapy: Planning the First Hospital-Based Heavy Ion Therapy Center in the United States. International Journal of Particle Therapy, 2015, 2, 468-470.	1.8	4
60	Pilot Study of a Wearable Activity Monitor During Head and Neck Radiotherapy to Predict Clinical Outcomes. JCO Clinical Cancer Informatics, 2022, 6, e2100179.	2.1	4
61	A real-time, soft robotic patient positioning system for maskless head-and-neck cancer radiotherapy: An initial investigation. , 2015, , .		3
62	Deep Interactive Denoiser (DID) for X-Ray Computed Tomography. IEEE Transactions on Medical Imaging, 2021, 40, 1-1.	8.9	3
63	Convolutionâ€based modified Clarkson integration (<scp>CMCI</scp>) for electron cutout factor calculation. Journal of Applied Clinical Medical Physics, 2018, 19, 128-136.	1.9	2
64	Vision-based control of a soft robot for maskless head and neck cancer radiotherapy. , 2016, , .		1
65	Iterative reconstruction with boundary detection for carbon ion computed tomography. Physics in Medicine and Biology, 2018, 63, 055002.	3.0	1
66	Using Supervised Learning and Guided Monte Carlo Tree Search for Beam Orientation Optimization in Radiation Therapy. Lecture Notes in Computer Science, 2019, , 1-9.	1.3	1
67	A shell and kernel descriptor based joint deep learning model for predicting breast lesion malignancy. , 2019, , .		1
68	Prediction of Type and Recurrence of Atrial Fibrillation after Catheter Ablation via Left Atrial Electroanatomical Voltage Mapping Registration and Multilayer Perceptron Classification: A Retrospective Study. Sensors, 2022, 22, 4058.	3.8	1
69	Design and development of soft robot for head and neck cancer radiotherapy. , 2018, , .		0
70	Advances in Computing Infrastructure. , 2018, , 121-147.		0
71	Deep BOO! Automating Beam Orientation Optimization in Intensity-Modulated Radiation Therapy. Springer Proceedings in Advanced Robotics, 2020, , 338-354.	1.3	0
72	Guest Editorial Special Section on Learning With Multimodal Data for Biomedical Informatics. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 2508-2511.	8.3	0