Lei Ren

List of Publications by Year
in descending order

49 papers	878 citations	516710 16 h-index	501196 28 g-index
49 all docs	49 docs citations	49 times ranked	749 citing authors

#	Article	IF	Citations
1	Real-Time Markerless Tracking of Lung Tumors Based on 2-D Fluoroscopy Imaging Using Convolutional LSTM. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 189-199.	3.7	2
2	Enhancement of 4-D Cone-Beam Computed Tomography (4D-CBCT) Using a Dual-Encoder Convolutional Neural Network (DeCNN). IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 222-230.	3.7	3
3	The markerless lung target tracking AAPM Grand Challenge (MATCH) results. Medical Physics, 2022, 49, 1161-1180.	3.0	15
4	Patient-specific deep learning model to enhance 4D-CBCT image for radiomics analysis. Physics in Medicine and Biology, 2022, 67, 085003.	3.0	4
5	A geometry-guided multi-beamlet deep learning technique for CT reconstruction. Biomedical Physics and Engineering Express, 2022, 8, 045004.	1.2	3
6	Dual-Intended Deep Learning Model for Breast Cancer Diagnosis in Ultrasound Imaging. Cancers, 2022, 14, 2663.	3.7	14
7	Fast fourâ€dimensional coneâ€beam computed tomography reconstruction using deformable convolutional networks. Medical Physics, 2022, 49, 6461-6476.	3.0	4
8	Patientâ€specific synthetic magnetic resonance imaging generation from cone beam computed tomography for image guidance in liver stereotactic body radiation therapy. Precision Radiation Oncology, 2022, 6, 110-118.	1.1	0
9	Prostate-specific membrane antigen PET response associates with radiographic progression-free survival following stereotactic ablative radiation therapy in oligometastatic castration-sensitive prostate cancer.. Journal of Clinical Oncology, 2022, 40, 5011-5011.	1.6	2
10	Enhancing digital tomosynthesis (DTS) for lung radiotherapy guidance using patient-specific deep learning model. Physics in Medicine and Biology, 2021, 66, 035009.	3.0	17
11	Prior image-guided cone-beam computed tomography augmentation from under-sampled projections using a convolutional neural network. Quantitative Imaging in Medicine and Surgery, 2021, 11, 4767-4780.	2.0	4
12	4D radiomics: impact of 4D-CBCT image quality on radiomic analysis. Physics in Medicine and Biology, 2021, 66, 045023.	3.0	9
13	Building a patient-specific model using transfer learning for four-dimensional cone beam computed tomography augmentation. Quantitative Imaging in Medicine and Surgery, 2021, 11, 540-555.	2.0	7
14	Respiratory deformation registration in 4D-CT/cone beam CT using deep learning. Quantitative Imaging in Medicine and Surgery, 2021, 11, 737-748.	2.0	9
15	A geometry-guided deep learning technique for CBCT reconstruction. Physics in Medicine and Biology, 2021, 66, 15LT01.	3.0	6
16	Multiâ€Contrast Fourâ€dimensional Magnetic Resonance Imaging (MCâ€4Dâ€MRI): development and initial evaluation in liver tumor patients. Medical Physics, 2021, 48, 7984.	3.0	5
17	Clinical implementation of AI technologies will require interpretable AI models. Medical Physics, 2020, 47, 1-4.	3.0	63
18	A multi-scale framework with unsupervised joint training of convolutional neural networks for pulmonary deformable image registration. Physics in Medicine and Biology, 2020, 65, 015011.	3.0	60

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19	Volumetric cine magnetic resonance imaging (VC-MRI) using motion modeling, free-form deformation and multi-slice undersampled 2D cine MRI reconstructed with spatio-temporal low-rank decomposition. Quantitative Imaging in Medicine and Surgery, 2020, 10, 432-450.	2.0	12
20	Development of realistic multi-contrast textured XCAT (MT-XCAT) phantoms using a dual-discriminator conditional-generative adversarial network (D-CGAN). Physics in Medicine and Biology, 2020, 65, 065009.	3.0	11
21	Intensity non-uniformity correction in MR imaging using residual cycle generative adversarial network. Physics in Medicine and Biology, 2020, 65, 215025.	3.0	27
22	MRI-based treatment planning for liver stereotactic body radiotherapy: validation of a deep learning-based synthetic CT generation method. British Journal of Radiology, 2019, 92, 20190067.	2.2	52
23	SPARE: Sparseâ€view reconstruction challenge for 4D coneâ€beam CT from a 1â€min scan. Medical Physics, 2019, 46, 3799-3811.	3.0	47
24	Low dose cone-beam computed tomography reconstruction via hybrid prior contour based total variation regularization (hybrid-PCTV). Quantitative Imaging in Medicine and Surgery, 2019, 9, 1214-1228.	2.0	6
25	Enhancing liver tumor localization accuracy by prior-knowledge-guided motion modeling and a biomechanical model. Quantitative Imaging in Medicine and Surgery, 2019, 9, 1337-1349.	2.0	8
26	Augmentation of CBCT Reconstructed From Under-Sampled Projections Using Deep Learning. IEEE Transactions on Medical Imaging, 2019, 38, 2705-2715.	8.9	52
27	Technical Note: Imaging dose resulting from optimized procedures with limitedâ€angle intrafractional verification system during stereotactic body radiation therapy lung treatment. Medical Physics, 2019, 46, 2709-2715.	3.0	0
28	Daily edge deformation prediction using an unsupervised convolutional neural network model for low dose prior contour based total variation CBCT reconstruction (PCTV-CNN). Biomedical Physics and Engineering Express, 2019, 5, 065013.	1.2	3
29	Monte Carlo analysis of beam blocking grid design parameters: Scatter estimation and the importance of electron backscatter. Medical Physics, 2018, 45, 1059-1070.	3.0	3
30	Low dose CBCT reconstruction via prior contour based total variation (PCTV) regularization: a feasibility study. Physics in Medicine and Biology, 2018, 63, 085014.	3.0	24
31	Image acquisition optimization of a limited-angle intrafraction verification (LIVE) system for lung radiotherapy. Medical Physics, 2018, 45, 340-351.	3.0	13
32	Principal component reconstruction (<scp>PCR</scp>) for cine <scp>CBCT</scp> with motion learning from 2D fluoroscopy. Medical Physics, 2018, 45, 167-177.	3.0	11
33	A Novel method to generate onâ€board 4D MRI using prior 4D MRI and onâ€board kV projections from a conventional LINAC for target localization in liver SBRT. Medical Physics, 2018, 45, 3238-3245.	3.0	11
34	Estimating 4Dâ€<scp>CBCT</scp> from prior information and extremely limited angle projections using structural <scp>PCA</scp> and weighted freeâ€form deformation for lung radiotherapy. Medical Physics, 2017, 44, 1089-1104.	3.0	22
35	Reducing scan angle using adaptive prior knowledge for a limited-angle intrafraction verification (LIVE) system for conformal arc radiotherapy. Physics in Medicine and Biology, 2017, 62, 3859-3882.	3.0	21
36	Clinical Study of Orthogonal-View Phase-Matched Digital Tomosynthesis for Lung Tumor Localization. Technology in Cancer Research and Treatment, 2017, 16, 866-878.	1.9	5

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37	Development of a Computerized 4-D MRI Phantom for Liver Motion Study. Technology in Cancer Research and Treatment, 2017, 16, 1051-1059.	1.9	6
38	Dosimetric Analysis of Microscopic Disease in SBRT for Lung Cancers. Technology in Cancer Research and Treatment, 2017, 16, 1113-1119.	1.9	0
39	Markerless Four-Dimensional-Cone Beam Computed Tomography Projection-Phase Sorting Using Prior Knowledge and Patient Motion Modeling: A Feasibility Study. Cancer Translational Medicine, 2017, 3, 185-193.	0.2	1
40	Sensitivity of 3D Dose Verification to Multileaf Collimator Misalignments in Stereotactic Body Radiation Therapy of Spinal Tumor. Technology in Cancer Research and Treatment, 2016, 15, NP25-NP34.	1.9	1
41	Scatter Reduction and Correction for Dual-Source Cone-Beam CT Using Prepatient Grids. Technology in Cancer Research and Treatment, 2016, 15, 416-427.	1.9	14
42	A Technique for Generating Volumetric Cine-Magnetic Resonance Imaging. International Journal of Radiation Oncology Biology Physics, 2016, 95, 844-853.	0.8	46
43	Dosimetric verification of lung cancer treatment using the CBCTs estimated from limitedâ€angle onâ€board projections. Medical Physics, 2015, 42, 4783-4795.	3.0	24
44	An interprojection sensor fusion approach to estimate blocked projection signal in synchronized moving grid-based CBCT system. Medical Physics, 2015, 43, 268-278.	3.0	1
45	Preliminary clinical evaluation of a 4D-CBCT estimation technique using prior information and limited-angle projections. Radiotherapy and Oncology, 2015, 115, 22-29.	0.6	48
46	A limitedâ€angle intrafraction verification (LIVE) system for radiation therapy. Medical Physics, 2014, 41, 020701.	3.0	54
47	A technique for estimating 4Dâ€CBCT using prior knowledge and limitedâ€angle projections. Medical Physics, 2013, 40, 121701.	3.0	74
48	Feasibility study of a synchronizedâ€movingâ€grid (SMOG) system to improve image quality in coneâ€beam computed tomography (CBCT). Medical Physics, 2012, 39, 5099-5110.	3.0	27
49	Automatic registration between reference and on-board digital tomosynthesis images for positioning verification. Medical Physics, 2008, 35, 664-672.	3.0	27