Yang Lei

List of Publications by Year in Descending Order

112 papers	1,754 citations	23 h-index	37 g-index
216 ext. papers	2,889 ext. citations	3.4 avg, IF	5.41 L-index

#	Paper	IF	Citations
112	Machine learning for tracking planned versus delivered dose in pancreas SBRT.. *Journal of Clinical Oncology*, **2022**, 40, 561-561	2.2	
111	Learning-based synthetic dual energy CT imaging from single energy CT for stopping power ratio calculation in proton radiation therapy. *British Journal of Radiology*, **2022**, 95, 20210644	3.4	4
110	Artificial intelligence in imaging of coronary artery disease: current applications and future perspective. *Chinese Journal of Academic Radiology*, **2022**, 5, 10-19	1	
109	Generative adversarial networks for medical image synthesis **2022**, 105-128		0
108	Prostate and dominant intraprostatic lesion segmentation on PET/CT using cascaded regional-net. *Physics in Medicine and Biology*, **2021**, 66,	3.8	1
107	Synthetic CT-aided multiorgan segmentation for CBCT-guided adaptive pancreatic radiotherapy. *Medical Physics*, **2021**, 48, 7063-7073	4.4	0
106	Deep learning-based motion tracking using ultrasound images. *Medical Physics*, **2021**, 48, 7747	4.4	2
105	Synthetic dual-energy CT for MRI-only based proton therapy treatment planning using label-GAN. *Physics in Medicine and Biology*, **2021**, 66, 065014	3.8	6
104	Male pelvic CT multi-organ segmentation using synthetic MRI-aided dual pyramid networks. *Physics in Medicine and Biology*, **2021**, 66,	3.8	3
103	Echocardiographic image multi-structure segmentation using Cardiac-SegNet. *Medical Physics*, **2021**, 48, 2426-2437	4.4	4
102	Automatic delineation of cardiac substructures using a region-based fully convolutional network. *Medical Physics*, **2021**, 48, 2867-2876	4.4	7
101	Deep Learning Architecture Design for Multi-Organ Segmentation **2021**, 81-112		0
100	Male pelvic multi-organ segmentation on transrectal ultrasound using anchor-free mask CNN. *Medical Physics*, **2021**, 48, 3055-3064	4.4	2
99	A review of deep learning based methods for medical image multi-organ segmentation. *Physica Medica*, **2021**, 85, 107-122	2.7	15
98	Artificial intelligence in tumor subregion analysis based on medical imaging: A review. *Journal of Applied Clinical Medical Physics*, **2021**, 22, 10-26	2.3	2
97	Self-supervised learning for accelerated 3D high-resolution ultrasound imaging. *Medical Physics*, **2021**, 48, 3916-3926	4.4	1
96	Learning-based dose prediction for pancreatic stereotactic body radiation therapy using dual pyramid adversarial network. *Physics in Medicine and Biology*, **2021**, 66,	3.8	3

95	Knowledge-based radiation treatment planning: A data-driven method survey. *Journal of Applied Clinical Medical Physics*, **2021**, 22, 16-44	2.3	4
94	Fully automated segmentation of brain tumor from multiparametric MRI using 3D context deep supervised U-Net. *Medical Physics*, **2021**, 48, 4365-4374	4.4	4
93	Biomechanically constrained non-rigid MR-TRUS prostate registration using deep learning based 3D point cloud matching. *Medical Image Analysis*, **2021**, 67, 101845	15.4	11
92	Deformable MR-CBCT prostate registration using biomechanically constrained deep learning networks. *Medical Physics*, **2021**, 48, 253-263	4.4	12
91	A review on medical imaging synthesis using deep learning and its clinical applications. *Journal of Applied Clinical Medical Physics*, **2021**, 22, 11-36	2.3	38
90	Automatic quantification of myocardium and pericardial fat from coronary computed tomography angiography: a multicenter study. *European Radiology*, **2021**, 31, 3826-3836	8	2
89	Breast tumor segmentation in 3D automatic breast ultrasound using Mask scoring R-CNN. *Medical Physics*, **2021**, 48, 204-214	4.4	16
88	MRI classification using semantic random forest with auto-context model. *Quantitative Imaging in Medicine and Surgery*, **2021**, 11, 4753-4766	3.6	
87	Learning-Based Stopping Power Mapping on Dual-Energy CT for Proton Radiation Therapy. *International Journal of Particle Therapy*, **2021**, 7, 46-60	1.5	1
86	Head-and-neck organs-at-risk auto-delineation using dual pyramid networks for CBCT-guided adaptive radiotherapy. *Physics in Medicine and Biology*, **2021**, 66, 045021	3.8	8
85	Prostate and tumor segmentation on PET/CT using Dual Mask R-CNN **2021**,		2
84	High through-plane resolution CT imaging with self-supervised deep learning. *Physics in Medicine and Biology*, **2021**, 66,	3.8	1
83	Automated delineation of head and neck organs at risk using synthetic MRI-aided mask scoring regional convolutional neural network. *Medical Physics*, **2021**, 48, 5862-5873	4.4	3
82	Lung tumor segmentation in 4D CT images using motion convolutional neural networks. *Medical Physics*, **2021**, 48, 7141-7153	4.4	0
81	Catheter position prediction using deep-learning-based multi-atlas registration for high-dose rate prostate brachytherapy. *Medical Physics*, **2021**, 48, 7261-7270	4.4	0
80	Automatic multi-catheter detection using deeply supervised convolutional neural network in MRI-guided HDR prostate brachytherapy. *Medical Physics*, **2020**, 47, 4115-4124	4.4	12
79	Automatic segmentation and quantification of epicardial adipose tissue from coronary computed tomography angiography. *Physics in Medicine and Biology*, **2020**, 65, 095012	3.8	7
78	Multi-needle Localization with Attention U-Net in US-guided HDR Prostate Brachytherapy. *Medical Physics*, **2020**, 47, 2735-2745	4.4	15

77	CBCT-based synthetic CT generation using deep-attention cycleGAN for pancreatic adaptive radiotherapy. *Medical Physics*, **2020**, 47, 2472-2483	4.4	36
76	Deep learning in medical image registration: a review. *Physics in Medicine and Biology*, **2020**, 65, 20TR01	3.8	102
75	Cone-beam CT-derived relative stopping power map generation via deep learning for proton radiotherapy. *Medical Physics*, **2020**, 47, 4416-4427	4.4	9
74	4D-CT deformable image registration using multiscale unsupervised deep learning. *Physics in Medicine and Biology*, **2020**, 65, 085003	3.8	22
73	Multi-Needle Detection in 3D Ultrasound Images Using Unsupervised Order-Graph Regularized Sparse Dictionary Learning. *IEEE Transactions on Medical Imaging*, **2020**, 39, 2302-2315	11.7	13
72	LungRegNet: An unsupervised deformable image registration method for 4D-CT lung. *Medical Physics*, **2020**, 47, 1763-1774	4.4	29
71	Label-driven magnetic resonance imaging (MRI)-transrectal ultrasound (TRUS) registration using weakly supervised learning for MRI-guided prostate radiotherapy. *Physics in Medicine and Biology*, **2020**, 65, 135002	3.8	16
70	Pelvic multi-organ segmentation on cone-beam CT for prostate adaptive radiotherapy. *Medical Physics*, **2020**, 47, 3415-3422	4.4	16
69	PET attenuation correction (AC) using non-AC PET-based synthetic CT **2020**,		2
68	Synthetic CT-aided MRI-CT image registration for head and neck radiotherapy **2020**,		2
67	Deep learning-based breast tumor detection and segmentation in 3D ultrasound image **2020**,		3
66	Low dose PET imaging with CT-aided cycle-consistent adversarial networks **2020**,		2
65	Deep attentional GAN-based high-resolution ultrasound imaging **2020**,		4
64	Super-resolution magnetic resonance imaging reconstruction using deep attention networks **2020**,		3
63	Organ-at-Risk (OAR) segmentation in head and neck CT using U-RCNN **2020**,		3
62	Multiparametric MRI-guided high-dose-rate prostate brachytherapy with focal dose boost to dominant intraprostatic lesions **2020**,		2
61	Automated coronary artery segmentation in Coronary Computed Tomography Angiography (CCTA) using deep learning neural networks **2020**,		3
60	Automatic epicardial fat segmentation in cardiac CT imaging using 3D deep attention U-Net **2020**,		5

59	Automatic multi-needle localization in ultrasound images using large margin mask RCNN for ultrasound-guided prostate brachytherapy. *Physics in Medicine and Biology*, **2020**, 65, 205003	3.8	5
58	Intensity non-uniformity correction in MR imaging using residual cycle generative adversarial network. *Physics in Medicine and Biology*, **2020**, 65, 215025	3.8	8
57	Deep learning-based real-time volumetric imaging for lung stereotactic body radiation therapy: a proof of concept study. *Physics in Medicine and Biology*, **2020**, 65, 235003	3.8	5
56	High quality proton portal imaging using deep learning for proton radiation therapy: a phantom study. *Biomedical Physics and Engineering Express*, **2020**, 6, 035029	1.5	3
55	Deep learning-based attenuation correction in the absence of structural information for whole-body positron emission tomography imaging. *Physics in Medicine and Biology*, **2020**, 65, 055011	3.8	49
54	Male pelvic multi-organ segmentation aided by CBCT-based synthetic MRI. *Physics in Medicine and Biology*, **2020**, 65, 035013	3.8	32
53	CT prostate segmentation based on synthetic MRI-aided deep attention fully convolution network. *Medical Physics*, **2020**, 47, 530-540	4.4	34
52	Multimodal MRI synthesis using unified generative adversarial networks. *Medical Physics*, **2020**, 47, 6343-6354	4.4	14
51	Brain tumor segmentation using 3D Mask R-CNN for dynamic susceptibility contrast enhanced perfusion imaging. *Physics in Medicine and Biology*, **2020**, 65, 185009	3.8	11
50	Automated left ventricular myocardium segmentation using 3D deeply supervised attention U-net for coronary computed tomography angiography; CT myocardium segmentation. *Medical Physics*, **2020**, 47, 1775-1785	4.4	11
49	Head and neck multi-organ auto-segmentation on CT images aided by synthetic MRI. *Medical Physics*, **2020**, 47, 4294-4302	4.4	10
48	CT-based multi-organ segmentation using a 3D self-attention U-net network for pancreatic radiotherapy. *Medical Physics*, **2020**, 47, 4316-4324	4.4	16
47	Machine learning in quantitative PET: A review of attenuation correction and low-count image reconstruction methods. *Physica Medica*, **2020**, 76, 294-306	2.7	26
46	A learning-based automatic segmentation and quantification method on left ventricle in gated myocardial perfusion SPECT imaging: A feasibility study. *Journal of Nuclear Cardiology*, **2020**, 27, 976-987	2.1	46
45	Thyroid gland delineation in noncontrast-enhanced CT using deep convolutional neural networks. *Physics in Medicine and Biology*, **2020**,	3.8	1
44	Evaluation of a deep learning-based pelvic synthetic CT generation technique for MRI-based prostate proton treatment planning. *Physics in Medicine and Biology*, **2019**, 64, 205022	3.8	23
43	Synthetic CT generation from non-attenuation corrected PET images for whole-body PET imaging. *Physics in Medicine and Biology*, **2019**, 64, 215016	3.8	34
42	Optimal virtual monoenergetic image in "TwinBeam" dual-energy CT for organs-at-risk delineation based on contrast-noise-ratio in head-and-neck radiotherapy. *Journal of Applied Clinical Medical Physics*, **2019**, 20, 121-128	2.3	15

41	MRI-only based synthetic CT generation using dense cycle consistent generative adversarial networks. *Medical Physics*, **2019**, 46, 3565-3581	4.4	95
40	Paired cycle-GAN-based image correction for quantitative cone-beam computed tomography. *Medical Physics*, **2019**, 46, 3998-4009	4.4	74
39	MRI-based treatment planning for proton radiotherapy: dosimetric validation of a deep learning-based liver synthetic CT generation method. *Physics in Medicine and Biology*, **2019**, 64, 145015	3.8	37
38	Learning-based automatic segmentation of arteriovenous malformations on contrast CT images in brain stereotactic radiosurgery. *Medical Physics*, **2019**, 46, 3133-3141	4.4	23
37	Ultrasound prostate segmentation based on multidirectional deeply supervised V-Net. *Medical Physics*, **2019**, 46, 3194-3206	4.4	52
36	Dosimetric study on learning-based cone-beam CT correction in adaptive radiation therapy. *Medical Dosimetry*, **2019**, 44, e71-e79	1.3	15
35	Dose evaluation of MRI-based synthetic CT generated using a machine learning method for prostate cancer radiotherapy. *Medical Dosimetry*, **2019**, 44, e64-e70	1.3	21
34	MRI-based synthetic CT generation using semantic random forest with iterative refinement. *Physics in Medicine and Biology*, **2019**, 64, 085001	3.8	19
33	Multiparametric MRI-guided dose boost to dominant intraprostatic lesions in CT-based High-dose-rate prostate brachytherapy. *British Journal of Radiology*, **2019**, 92, 20190089	3.4	13
32	Deeply supervised 3D fully convolutional networks with group dilated convolution for automatic MRI prostate segmentation. *Medical Physics*, **2019**, 46, 1707-1718	4.4	90
31	Automatic multiorgan segmentation in thorax CT images using U-net-GAN. *Medical Physics*, **2019**, 46, 2157-2168	4.4	128
30	MRI-based treatment planning for brain stereotactic radiosurgery: Dosimetric validation of a learning-based pseudo-CT generation method. *Medical Dosimetry*, **2019**, 44, 199-204	1.3	34
29	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	3.4	31
28	Machine-learning based classification of glioblastoma using delta-radiomic features derived from dynamic susceptibility contrast enhanced magnetic resonance images: Introduction. *Quantitative Imaging in Medicine and Surgery*, **2019**, 9, 1201-1213	3.6	18
27	Whole-body PET estimation from low count statistics using cycle-consistent generative adversarial networks. *Physics in Medicine and Biology*, **2019**, 64, 215017	3.8	35
26	Synthetic MRI-aided multi-organ segmentation on male pelvic CT using cycle consistent deep attention network. *Radiotherapy and Oncology*, **2019**, 141, 192-199	5.3	55
25	Deep learning-based image quality improvement for low-dose computed tomography simulation in radiation therapy. *Journal of Medical Imaging*, **2019**, 6, 043504	2.6	12
24	Image quality improvement in cone-beam CT using deep learning **2019**,		5

23	Automated prostate segmentation of volumetric CT images using 3D deeply supervised dilated FCN **2019**,		9
22	MRI-based synthetic CT generation using deep convolutional neural network **2019**,		4
21	Automatic MRI prostate segmentation using 3D deeply supervised FCN with concatenated atrous convolution **2019**,		4
20	Learning-based automatic segmentation on arteriovenous malformations from contract-enhanced CT images **2019**,		1
19	Ultrasound prostate segmentation based on 3D V-Net with deep supervision **2019**,		5
18	Machine-learning-based classification of Glioblastoma using MRI-based radiomic features **2019**,		1
17	MRI-Based Proton Treatment Planning for Base of Skull Tumors. *International Journal of Particle Therapy*, **2019**, 6, 12-25	1.5	11
16	CBCT-Based Synthetic MRI Generation for CBCT-Guided Adaptive Radiotherapy. *Lecture Notes in Computer Science*, **2019**, 154-161	0.9	2
15	4D-CT Deformable Image Registration Using an Unsupervised Deep Convolutional Neural Network. *Lecture Notes in Computer Science*, **2019**, 26-33	0.9	7
14	Learning-based CBCT correction using alternating random forest based on auto-context model. *Medical Physics*, **2019**, 46, 601-618	4.4	25
13	MRI-based attenuation correction for brain PET/MRI based on anatomic signature and machine learning. *Physics in Medicine and Biology*, **2019**, 64, 025001	3.8	23
12	Magnetic resonance imaging-based pseudo computed tomography using anatomic signature and joint dictionary learning. *Journal of Medical Imaging*, **2018**, 5, 034001	2.6	15
11	MRI-based pseudo CT synthesis using anatomical signature and alternating random forest with iterative refinement model. *Journal of Medical Imaging*, **2018**, 5, 043504	2.6	18
10	Improving Image Quality of Cone-Beam CT Using Alternating Regression Forest. *Proceedings of SPIE*, **2018**, 10573,	1.7	6
9	High-resolution CT Image Retrieval Using Sparse Convolutional Neural Network. *Proceedings of SPIE*, **2018**, 10573,	1.7	2
8	A Denoising Algorithm for CT Image Using Low-rank Sparse Coding. *Proceedings of SPIE*, **2018**, 10574,	1.7	3
7	Pseudo CT Estimation from MRI Using Patch-based Random Forest. *Proceedings of SPIE*, **2017**, 10133,	1.7	18
6	A Learning-Based Approach to Derive Electron Density from Anatomical MRI for Radiation Therapy Treatment Planning. *International Journal of Radiation Oncology Biology Physics*, **2017**, 99, S173-S174	4	11

5	A Leaning-Based Method to Improve Cone Beam CT Image Quality for Adaptive Radiation Therapy. *International Journal of Radiation Oncology Biology Physics*, **2017**, 99, S224	4	4
4	Nonlocally centralized simultaneous sparse coding. *Transactions of Tianjin University*, **2016**, 22, 403-410	2.9	
3	Non-Convex Low-Rank Approximation for Image Denoising and Deblurring. *IEICE Transactions on Information and Systems*, **2016**, E99.D, 1364-1374	0.6	0
2	An improved IRLS algorithm for sparse recovery with intra-block correlation. *Optik*, **2015**, 126, 850-854	2.5	2
1	Two-stage sparse representation-based face recognition with reconstructed images. *Journal of Electronic Imaging*, **2014**, 23, 053021	0.7	