Tonghe Wang

List of Publications by Year in Descending Order

89 papers	1,667 citations	23 h-index	37 g-index
101 ext. papers	2,660 ext. citations	3.6 avg, IF	5.36 L-index

#	Paper	IF	Citations
89	Machine learning for tracking planned versus delivered dose in pancreas SBRT.. *Journal of Clinical Oncology*, **2022**, 40, 561-561	2.2	
88	Dosimetric Uncertainties in Dominant Intraprostatic Lesion Simultaneous Boost Using Intensity Modulated Proton Therapy. *Advances in Radiation Oncology*, **2022**, 7, 100826	3.3	0
87	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
86	Generative adversarial networks for medical image synthesis **2022**, 105-128		0
85	Prostate and dominant intraprostatic lesion segmentation on PET/CT using cascaded regional-net. *Physics in Medicine and Biology*, **2021**, 66,	3.8	1
84	Synthetic CT-aided multiorgan segmentation for CBCT-guided adaptive pancreatic radiotherapy. *Medical Physics*, **2021**, 48, 7063-7073	4.4	0
83	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
82	Male pelvic CT multi-organ segmentation using synthetic MRI-aided dual pyramid networks. *Physics in Medicine and Biology*, **2021**, 66,	3.8	3
81	Male pelvic multi-organ segmentation on transrectal ultrasound using anchor-free mask CNN. *Medical Physics*, **2021**, 48, 3055-3064	4.4	2
80	A review of deep learning based methods for medical image multi-organ segmentation. *Physica Medica*, **2021**, 85, 107-122	2.7	15
79	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
78	Self-supervised learning for accelerated 3D high-resolution ultrasound imaging. *Medical Physics*, **2021**, 48, 3916-3926	4.4	1
77	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
76	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
75	Deformable MR-CBCT prostate registration using biomechanically constrained deep learning networks. *Medical Physics*, **2021**, 48, 253-263	4.4	12
74	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
73	Automatic quantification of myocardium and pericardial fat from coronary computed tomography angiography: a multicenter study. *European Radiology*, **2021**, 31, 3826-3836	8	2

72	Breast tumor segmentation in 3D automatic breast ultrasound using Mask scoring R-CNN. *Medical Physics*, **2021**, 48, 204-214	4.4	16
71	MRI classification using semantic random forest with auto-context model. *Quantitative Imaging in Medicine and Surgery*, **2021**, 11, 4753-4766	3.6	
70	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
69	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
68	High through-plane resolution CT imaging with self-supervised deep learning. *Physics in Medicine and Biology*, **2021**, 66,	3.8	1
67	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
66	Lung tumor segmentation in 4D CT images using motion convolutional neural networks. *Medical Physics*, **2021**, 48, 7141-7153	4.4	0
65	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
64	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
63	Automatic segmentation and quantification of epicardial adipose tissue from coronary computed tomography angiography. *Physics in Medicine and Biology*, **2020**, 65, 095012	3.8	7
62	Multi-needle Localization with Attention U-Net in US-guided HDR Prostate Brachytherapy. *Medical Physics*, **2020**, 47, 2735-2745	4.4	15
61	CBCT-based synthetic CT generation using deep-attention cycleGAN for pancreatic adaptive radiotherapy. *Medical Physics*, **2020**, 47, 2472-2483	4.4	36
60	Deep learning in medical image registration: a review. *Physics in Medicine and Biology*, **2020**, 65, 20TR01	3.8	102
59	Cone-beam CT-derived relative stopping power map generation via deep learning for proton radiotherapy. *Medical Physics*, **2020**, 47, 4416-4427	4.4	9
58	4D-CT deformable image registration using multiscale unsupervised deep learning. *Physics in Medicine and Biology*, **2020**, 65, 085003	3.8	22
57	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
56	LungRegNet: An unsupervised deformable image registration method for 4D-CT lung. *Medical Physics*, **2020**, 47, 1763-1774	4.4	29
55	A preliminary study on a multiresolution-level inverse planning approach for Gamma Knife radiosurgery. *Medical Physics*, **2020**, 47, 1523-1532	4.4	8

54	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
53	Pelvic multi-organ segmentation on cone-beam CT for prostate adaptive radiotherapy. *Medical Physics*, **2020**, 47, 3415-3422	4.4	16
52	Deep attentional GAN-based high-resolution ultrasound imaging **2020**,		4
51	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
50	Intensity non-uniformity correction in MR imaging using residual cycle generative adversarial network. *Physics in Medicine and Biology*, **2020**, 65, 215025	3.8	8
49	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
48	A planning study of focal dose escalations to multiparametric MRI-defined dominant intraprostatic lesions in prostate proton radiation therapy. *British Journal of Radiology*, **2020**, 93, 20190845	3.4	7
47	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
46	Male pelvic multi-organ segmentation aided by CBCT-based synthetic MRI. *Physics in Medicine and Biology*, **2020**, 65, 035013	3.8	32
45	CT prostate segmentation based on synthetic MRI-aided deep attention fully convolution network. *Medical Physics*, **2020**, 47, 530-540	4.4	34
44	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
43	Head and neck multi-organ auto-segmentation on CT images aided by synthetic MRI. *Medical Physics*, **2020**, 47, 4294-4302	4.4	10
42	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
41	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
40	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
39	Thyroid gland delineation in noncontrast-enhanced CT using deep convolutional neural networks. *Physics in Medicine and Biology*, **2020**,	3.8	1
38	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
37	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

36	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
35	MRI-only based synthetic CT generation using dense cycle consistent generative adversarial networks. *Medical Physics*, **2019**, 46, 3565-3581	4.4	95
34	Paired cycle-GAN-based image correction for quantitative cone-beam computed tomography. *Medical Physics*, **2019**, 46, 3998-4009	4.4	74
33	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
32	Learning-based automatic segmentation of arteriovenous malformations on contrast CT images in brain stereotactic radiosurgery. *Medical Physics*, **2019**, 46, 3133-3141	4.4	23
31	Ultrasound prostate segmentation based on multidirectional deeply supervised V-Net. *Medical Physics*, **2019**, 46, 3194-3206	4.4	52
30	Dosimetric study on learning-based cone-beam CT correction in adaptive radiation therapy. *Medical Dosimetry*, **2019**, 44, e71-e79	1.3	15
29	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
28	MRI-based synthetic CT generation using semantic random forest with iterative refinement. *Physics in Medicine and Biology*, **2019**, 64, 085001	3.8	19
27	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
26	Deeply supervised 3D fully convolutional networks with group dilated convolution for automatic MRI prostate segmentation. *Medical Physics*, **2019**, 46, 1707-1718	4.4	90
25	Automatic multiorgan segmentation in thorax CT images using U-net-GAN. *Medical Physics*, **2019**, 46, 2157-2168	4.4	128
24	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
23	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
22	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
21	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
20	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
19	Image quality improvement in cone-beam CT using deep learning **2019**,		5

18	Automated prostate segmentation of volumetric CT images using 3D deeply supervised dilated FCN **2019**,		9
17	MRI-based synthetic CT generation using deep convolutional neural network **2019**,		4
16	Learning-based automatic segmentation on arteriovenous malformations from contract-enhanced CT images **2019**,		1
15	Ultrasound prostate segmentation based on 3D V-Net with deep supervision **2019**,		5
14	MRI-Based Proton Treatment Planning for Base of Skull Tumors. *International Journal of Particle Therapy*, **2019**, 6, 12-25	1.5	11
13	CBCT-Based Synthetic MRI Generation for CBCT-Guided Adaptive Radiotherapy. *Lecture Notes in Computer Science*, **2019**, 154-161	0.9	2
12	4D-CT Deformable Image Registration Using an Unsupervised Deep Convolutional Neural Network. *Lecture Notes in Computer Science*, **2019**, 26-33	0.9	7
11	Learning-based CBCT correction using alternating random forest based on auto-context model. *Medical Physics*, **2019**, 46, 601-618	4.4	25
10	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
9	Magnetic resonance imaging-based pseudo computed tomography using anatomic signature and joint dictionary learning. *Journal of Medical Imaging*, **2018**, 5, 034001	2.6	15
8	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
7	Improving Image Quality of Cone-Beam CT Using Alternating Regression Forest. *Proceedings of SPIE* , **2018**, 10573,	1.7	6
6	A Denoising Algorithm for CT Image Using Low-rank Sparse Coding. *Proceedings of SPIE*, **2018**, 10574,	1.7	3
5	Pixel-wise estimation of noise statistics on iterative CT reconstruction from a single scan. *Medical Physics*, **2017**, 44, 3525-3533	4.4	4
4	Image-domain non-uniformity correction for cone-beam CT **2017**,		4
3	Noise suppression for energy-resolved CT using similarity-based non-local filtration **2016**,		3
2	Dual energy CT with one full scan and a second sparse-view scan using structure preserving iterative reconstruction (SPIR). *Physics in Medicine and Biology*, **2016**, 61, 6684-6706	3.8	18
1	Noise suppression for dual-energy CT via penalized weighted least-square optimization with similarity-based regularization. *Medical Physics*, **2016**, 43, 2676	4.4	29