

Xiangyang Tang

List of Publications by Year in descending order

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49
papers

1,165
citations

471509

17
h-index

395702

33
g-index

50
all docs

50
docs citations

50
times ranked

1016
citing authors

#	ARTICLE	IF	CITATIONS
1	Paired cycleGAN-based image correction for quantitative cone-beam computed tomography. Medical Physics, 2019, 46, 3998-4009.	3.0	164
2	Flat panel detector-based cone-beam volume CT angiography imaging: system evaluation. IEEE Transactions on Medical Imaging, 2000, 19, 949-963.	8.9	123
3	CBCT-based synthetic CT generation using deep attention cycleGAN for pancreatic adaptive radiotherapy. Medical Physics, 2020, 47, 2472-2483.	3.0	113
4	A three-dimensional-weighted cone beam filtered backprojection (CB-FBP) algorithm for image reconstruction in volumetric CT helical scanning. Physics in Medicine and Biology, 2006, 51, 855-874.	3.0	107
5	A three-dimensional weighted cone beam filtered backprojection (CB-FBP) algorithm for image reconstruction in volumetric CT under a circular source trajectory. Physics in Medicine and Biology, 2005, 50, 3889-3905.	3.0	74
6	Cone beam volume CT image artifacts caused by defective cells in x-ray flat panel imagers and the artifact removal using a wavelet-analysis-based algorithm. Medical Physics, 2001, 28, 812-825.	3.0	48
7	Characterization of imaging performance in differential phase contrast CT compared with the conventional CT Noise power spectrum NPS. Medical Physics, 2011, 38, 4386-4395.	3.0	43
8	3D Fusion of LV Venous Anatomy on Fluoroscopy Venograms With Epicardial Surface on SPECT Myocardial Perfusion Images for Guiding CRT LV Lead Placement. JACC: Cardiovascular Imaging, 2014, 7, 1239-1248.	5.3	43
9	Learning-based CBCT correction using alternating random forest based on auto-context model. Medical Physics, 2019, 46, 601-618.	3.0	36
10	CT-based multi-organ segmentation using a 3D self-attention U-net network for pancreatic radiotherapy. Medical Physics, 2020, 47, 4316-4324.	3.0	35
11	Characterization of imaging performance in differential phase contrast CT compared with the conventional CT: Spectrum of noise equivalent quanta NEQ. Medical Physics, 2012, 39, 4467-4482.	3.0	33
12	A cone beam filtered backprojection (CB-FBP) reconstruction algorithm for a circle-plus-two-arc orbit. Medical Physics, 2001, 28, 1042-1055.	3.0	31
13	Statistical CT noise reduction with multiscale decomposition and penalized weighted least squares in the projection domain. Medical Physics, 2012, 39, 5498-5512.	3.0	30
14	A filtered backprojection algorithm for cone beam reconstruction using rotational filtering under helical source trajectory. Medical Physics, 2004, 31, 2949-2960.	3.0	26
15	On the data acquisition, image reconstruction, cone beam artifacts, and their suppression in axial MDCT and CBCT. A review. Medical Physics, 2018, 45, e761.	3.0	21
16	Optimal virtual monoenergetic image in TwinBeam dual-energy CT for organs at risk delineation based on contrast-to-noise ratio in head and neck radiotherapy. Journal of Applied Clinical Medical Physics, 2019, 20, 121-128.	1.9	21
17	Dosimetric study on learning-based cone-beam CT correction in adaptive radiation therapy. Medical Dosimetry, 2019, 44, e71-e79.	0.9	20
18	Increased Computed Tomography Dose Due to Miscentering With Use of Automated Tube Voltage Selection: Phantom and Patient Study. Current Problems in Diagnostic Radiology, 2016, 45, 265-270.	1.4	17

#	ARTICLE	IF	CITATIONS
19	Prevalence and Severity of Off-Centering During Diagnostic CT: Observations From 57,621 CT scans of the Chest, Abdomen, and/or Pelvis. <i>Current Problems in Diagnostic Radiology</i> , 2019, 48, 229-234.	1.4	17
20	Enhancement of in-plane spatial resolution in volumetric computed tomography with focal spot wobbling – Overcoming the constraint on number of projection views per gantry rotation. <i>Journal of X-Ray Science and Technology</i> , 2010, 18, 251-265.	1.0	16
21	Optimization based beam-hardening correction in CT under data integral invariant constraint. <i>Physics in Medicine and Biology</i> , 2018, 63, 135015.	3.0	11
22	On the Conditioning of Spectral Channelization (Energy Binning) and Its Impact on Multi-Material Decomposition Based Spectral Imaging in Photon-Counting CT. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 2678-2688.	4.2	11
23	A nanocomposite of Au–AgI core/shell dimer as a dual-modality contrast agent for x-ray computed tomography and photoacoustic imaging. <i>Medical Physics</i> , 2016, 43, 589-599.	3.0	10
24	Axial Cone-Beam Reconstruction by Weighted BPF/DBPF and Orthogonal Butterfly Filtering. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 1895-1903.	4.2	10
25	Interior tomography in microscopic CT with image reconstruction constrained by full field of view scan at low spatial resolution. <i>Physics in Medicine and Biology</i> , 2018, 63, 075006.	3.0	10
26	On the conditioning of basis materials and its impact on multimaterial decomposition-based spectral imaging in photon-counting CT. <i>Medical Physics</i> , 2021, 48, 1100-1116.	3.0	10
27	The mathematical equivalence of consistency conditions in the divergent-beam computed tomography. <i>Journal of X-Ray Science and Technology</i> , 2012, 20, 45-68.	1.0	9
28	Principal Component Analysis in Projection and Image Domains – Another Form of Spectral Imaging in Photon-Counting CT. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 1074-1083.	4.2	9
29	Improving image quality of cone-beam CT using alternating regression forest. , 2018, 10573, .		9
30	High through-plane resolution CT imaging with self-supervised deep learning. <i>Physics in Medicine and Biology</i> , 2021, 66, 145013.	3.0	8
31	Grating-based x-ray differential phase contrast imaging with twin peaks in phase-stepping curves – phase retrieval and unwrapping. <i>Medical Physics</i> , 2016, 43, 2855-2869.	3.0	6
32	Content-oriented sparse representation (COSR) for CT denoising with preservation of texture and edge. <i>Medical Physics</i> , 2018, 45, 4942-4954.	3.0	6
33	Optimization of basis material selection and energy binning in three material decomposition for spectral imaging without contrast agents in photon-counting CT. , 2020, , .		6
34	Three-Dimensional Weighting in Cone Beam FBP Reconstruction and Its Transformation Over Geometries. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 1235-1244.	4.2	5
35	X-ray differential phase contrast and dark-field computed tomography and radiography with microbubbles as contrast agent. , 2013, , .		4
36	Complex dark-field contrast and its retrieval in x-ray phase contrast imaging implemented with Talbot interferometry. <i>Medical Physics</i> , 2014, 41, 101914.	3.0	4

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37	Reducing radiation dose in grating based x-ray phase contrast CT with twin-peaks in its phase stepping curves. Medical Physics, 2016, 43, 5942-5950.	3.0	4
38	A patch-based CBCT scatter artifact correction using prior CT. Proceedings of SPIE, 2017, 10132, .	0.8	4
39	Optimization of data acquisition in axial CT under the framework of sampling on lattice for suppression of aliasing artifacts with algorithmic detector interlacing. Medical Physics, 2017, 44, 6239-6250.	3.0	3
40	Data sustained misalignment correction in microscopic cone beam CT via optimization under the Grangeat Epipolar consistency condition. Medical Physics, 2020, 47, 498-508.	3.0	3
41	Three material decomposition for spectral imaging without contrast agents in photon-counting CT—Modeling and feasibility study. , 2020, , .		3
42	Impact of Overlying Personal Items on CT Dose with Use of Automated Tube Current Modulation—Pilot Investigation. Current Problems in Diagnostic Radiology, 2020, 49, 29-33.	1.4	1
43	Photon-counting CT via interleaved/gapped spectral channels: Feasibility and imaging performance. Medical Physics, 2021, , .	3.0	1
44	An efficient cone beam filtered back-projection (CB-FBP) reconstruction algorithm for a circle-plus-two-arc orbit. , 0, , .		0
45	The property of signal-to-noise and its variation over spatial frequency in differential phase contrast CT. , 2012, , .		0
46	Differential phase contrast CT — Characteristics of signal and noise. , 2012, , .		0
47	Image-domain correction for gray level variation in circular cone-beam CT. , 2015, , .		0
48	Z-range Extension of Volume Imaged with Clinical C-arm Computed Tomography from A Single Rotation Helical Cone-beam Scan. , 2019, , .		0
49	Data acquisition with interleaved/gapped spectral channelization for spectral imaging in photon-counting CT. , 2022, , .		0