

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
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50
all docs

50
docs citations

50
times ranked

1016
citing authors

#	ARTICLE	IF	CITATIONS
1	Data acquisition with interleaved/gapped spectral channelization for spectral imaging in photon-counting CT. , 2022, , .		0
2	Principal Component Analysis in Projection and Image Domains—Another Form of Spectral Imaging in Photon-Counting CT. IEEE Transactions on Biomedical Engineering, 2021, 68, 1074-1083.	4.2	9
3	On the conditioning of basis materials and its impact on multimaterial decomposition-based spectral imaging in photon-counting CT. Medical Physics, 2021, 48, 1100-1116.	3.0	10
4	High through-plane resolution CT imaging with self-supervised deep learning. Physics in Medicine and Biology, 2021, 66, 145013.	3.0	8
5	On the Conditioning of Spectral Channelization (Energy Binning) and Its Impact on Multi-Material Decomposition Based Spectral Imaging in Photon-Counting CT. IEEE Transactions on Biomedical Engineering, 2021, 68, 2678-2688.	4.2	11
6	Photon-counting CT via interleaved/gapped spectral channels: Feasibility and imaging performance. Medical Physics, 2021, , .	3.0	1
7	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
8	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
9	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
10	CBCT-based synthetic CT generation using deep-attention cycleGAN for pancreatic adaptive radiotherapy. Medical Physics, 2020, 47, 2472-2483.	3.0	113
11	Three material decomposition for spectral imaging without contrast agents in photon-counting CT—Modeling and feasibility study. , 2020, , .		3
12	Optimization of basis material selection and energy binning in three material decomposition for spectral imaging without contrast agents in photon-counting CT. , 2020, , .		6
13	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
14	Paired cycleGAN-based image correction for quantitative cone-beam computed tomography. Medical Physics, 2019, 46, 3998-4009.	3.0	164
15	Dosimetric study on learning-based cone-beam CT correction in adaptive radiation therapy. Medical Dosimetry, 2019, 44, e71-e79.	0.9	20
16	Learning-based CBCT correction using alternating random forest based on auto-context model. Medical Physics, 2019, 46, 601-618.	3.0	36
17	Prevalence and Severity of Off-Centering During Diagnostic CT: Observations From 57,621 CT scans of the Chest, Abdomen, and/or Pelvis. Current Problems in Diagnostic Radiology, 2019, 48, 229-234.	1.4	17
18	Z-range Extension of Volume Imaged with Clinical C-arm Computed Tomography from A Single Rotation Helical Cone-beam Scan. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	Content-oriented sparse representation (<sc>COSR</sc>) for <sc>CT</sc> denoising with preservation of texture and edge. <i>Medical Physics</i> , 2018, 45, 4942-4954.	3.0	6
22	On the data acquisition, image reconstruction, cone beam artifacts, and their suppression in axial <sc>MDCT</sc> and <sc>CBCT</sc> – A review. <i>Medical Physics</i> , 2018, 45, e761.	3.0	21
23	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
24	Improving image quality of cone-beam CT using alternating regression forest. , 2018, 10573, .		9
25	A patch-based CBCT scatter artifact correction using prior CT. <i>Proceedings of SPIE</i> , 2017, 10132, .	0.8	4
26	Optimization of data acquisition in axial <sc>CT</sc> under the framework of sampling on lattice for suppression of aliasing artifacts with algorithmic detector interlacing. <i>Medical Physics</i> , 2017, 44, 6239-6250.	3.0	3
27	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
28	A nanocomposite of Au@Ag 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
29	Reducing radiation dose in grating based x-ray phase contrast CT with twin peaks in its phase stepping curves. <i>Medical Physics</i> , 2016, 43, 5942-5950.	3.0	4
30	Increased Computed Tomography Dose Due to Miscentering With Use of Automated Tube Voltage Selection: Phantom and Patient Study. <i>Current Problems in Diagnostic Radiology</i> , 2016, 45, 265-270.	1.4	17
31	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
32	Image-domain correction for gray level variation in circular cone-beam CT. , 2015, , .		0
33	3D Fusion of LV Venous Anatomy on Fluoroscopy Venograms With Epicardial Surface on SPECT Myocardial Perfusion Images for Guiding CRT LV Lead Placement. <i>JACC: Cardiovascular Imaging</i> , 2014, 7, 1239-1248.	5.3	43
34	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
35	X-ray differential phase contrast and dark-field computed tomography and radiography with microbubbles as contrast agent. , 2013, , .		4
36	Characterization of imaging performance in differential phase contrast CT compared with the conventional CT: Spectrum of noise equivalent quanta NEQ($\langle i \rangle k \langle i \rangle$). <i>Medical Physics</i> , 2012, 39, 4467-4482.	3.0	33

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37	The property of signal-to-noise and its variation over spatial frequency in differential phase contrast CT. , 2012, , .		0
38	The mathematical equivalence of consistency conditions in the divergent-beam computed tomography. Journal of X-Ray Science and Technology, 2012, 20, 45-68.	1.0	9
39	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
40	Differential phase contrast CT — Characteristics of signal and noise. , 2012, , .		0
41	Characterization of imaging performance in differential phase contrast CT compared with the conventional CTâ€™Noise power spectrum NPS($\langle i \rangle k \langle i \rangle$). Medical Physics, 2011, 38, 4386-4395.	3.0	43
42	Enhancement of in-plane spatial resolution in volumetric computed tomography with focal spot wobbling â€™ Overcoming the constraint on number of projection views per gantry rotation. Journal of X-Ray Science and Technology, 2010, 18, 251-265.	1.0	16
43	A three-dimensional-weighted cone beam filtered backprojection (CB-FBP) algorithm for image reconstruction in volumetric CTâ€™helical scanning. Physics in Medicine and Biology, 2006, 51, 855-874.	3.0	107
44	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
45	A filtered backprojection algorithm for cone beam reconstruction using rotational filtering under helical source trajectory. Medical Physics, 2004, 31, 2949-2960.	3.0	26
46	A cone beam filtered backprojection (CBâ€™FBP) reconstruction algorithm for a circleâ€™plusâ€™twoâ€™arc orbit. Medical Physics, 2001, 28, 1042-1055.	3.0	31
47	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
48	Flat panel detector-based cone-beam volume CT angiography imaging: system evaluation. IEEE Transactions on Medical Imaging, 2000, 19, 949-963.	8.9	123
49	An efficient cone beam filtered back-projection (CB-FBP) reconstruction algorithm for a circle-plus-two-arc orbit. , 0, , .		0