Ehsan Abadi

List of Publications by Year
in descending order

53 papers	491 citations	933447 10 h-index	752698 20 g-index
53 all docs	53 docs citations	53 times ranked	481 citing authors

#	Article	IF	Citations
1	Corrections to "<i>i</i>Phantom: A Framework for Automated Creation of Individualized Computational Phantoms and its Application to CT Organ Dosimetry"[Aug 21 3061-3072]. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 478-478.	6.3	0
2	Quantitative analysis of changes in lung density by dynamic chest radiography in association with CT values: a virtual imaging study and initial clinical corroboration. Radiological Physics and Technology, 2022, 15, 45.	1.9	0
3	Anatomically and physiologically informed computational model of hepatic contrast perfusion for virtual imaging trials. Medical Physics, 2022, 49, 2938-2951.	3.0	7
4	Optimization of imaging parameters of an investigational photon-counting CT prototype for lung lesion radiomics. , 2022, , .		0
5	Inter- and intra-scan variability for lung imaging quantifications via CT. , 2022, 12031, .		0
6	A truth-based primal-dual learning approach to reconstruct CT images utilizing the virtual imaging trial platform. , 2022, 12031, .		0
7	Scanner-specific validation of a CT simulator using a COPD-emulated anthropomorphic phantom. , 2022, 12031, .		1
8	Photon-counting CT versus conventional CT for COPD quantifications: intra-scanner optimization and inter-scanner assessments using virtual imaging trials. , 2022, 12031, .		3
9	Development and clinical applications of a virtual imaging framework for optimizing photon-counting CT. , 2022, , .		5
10	Virtual versus reality: external validation of COVID-19 classifiers using XCAT phantoms for chest computed tomography. , 2022, , .		0
11	Quality or quantity: toward a unified approach for multi-organ segmentation in body CT. , 2022, , .		0
12	Cardiac CT reconstruction for vendor-neutral virtual imaging trials. , 2022, , .		1
13	Virtual Imaging Trials for Coronavirus Disease (COVID-19). American Journal of Roentgenology, 2021, 216, 362-368.	2.2	9
14	COPD quantifications via CT imaging: ascertaining the effects of acquisition protocol using virtual imaging trial. , 2021, , .		4
15	Assessment of pleural invasion and adhesion of lung tumors with dynamic chest radiography: A virtual clinical imaging study. Medical Physics, 2021, 48, 1616-1623.	3.0	5
16	A GPU-accelerated framework for rapid estimation of scanner-specific scatter in CT for virtual imaging trials. Physics in Medicine and Biology, 2021, 66, 075004.	3.0	7
17	Correction for Systematic Bias in Radiomics Measurements Due to Variation in Imaging Protocols. Academic Radiology, 2021, , .	2.5	0
18	<i>i</i>Phantom: A Framework for Automated Creation of Individualized Computational Phantoms and Its Application to CT Organ Dosimetry. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 3061-3072.	6.3	15

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19	A scanner-specific framework for simulating CT images with tube current modulation. Physics in Medicine and Biology, 2021, 66, 185010.	3.0	10
20	Development and validation of an automated methodology to assess perceptual in vivo noise texture in liver CT. Journal of Medical Imaging, 2021, 8, 052113.	1.5	4
21	Development, validation, and relevance of in vivo low‐contrast task transfer function to estimate detectability in clinical CT images. Medical Physics, 2021, 48, 7698.	3.0	0
22	Deep learning classification of COVID-19 in chest radiographs: performance and influence of supplemental training. Journal of Medical Imaging, 2021, 8, 064501.	1.5	1
23	A comparison of COVID-19 and imaging radiation risk in clinical patient populations. Journal of Radiological Protection, 2020, , .	1.1	5
24	Virtual clinical trials in medical imaging: a review. Journal of Medical Imaging, 2020, 7, 1.	1.5	93
25	Virtual clinical trial for quantifying the effects of beam collimation and pitch on image quality in computed tomography. Journal of Medical Imaging, 2020, 7, 1.	1.5	2
26	Modeling Patient-Informed Liver Contrast Perfusion in Contrast-enhanced Computed Tomography. Journal of Computer Assisted Tomography, 2020, 44, 882-886.	0.9	1
27	Validation of algorithmic CT image quality metrics with preferences of radiologists. Medical Physics, 2019, 46, 4837-4846.	3.0	18
28	A real-time Monte Carlo tool for individualized dose estimations in clinical CT. Physics in Medicine and Biology, 2019, 64, 215020.	3.0	18
29	Development of a scanner-specific simulation framework for photon-counting computed tomography. Biomedical Physics and Engineering Express, 2019, 5, 055008.	1.2	14
30	DukeSim: A Realistic, Rapid, and Scanner-Specific Simulation Framework in Computed Tomography. IEEE Transactions on Medical Imaging, 2019, 38, 1457-1465.	8.9	49
31	Modeling "Textured" Bones in Virtual Human Phantoms. IEEE Transactions on Radiation and Plasma Medical Sciences, 2019, 3, 47-53.	3.7	29
32	Systematic analysis of bias and variability of texture measurements in computed tomography. Journal of Medical Imaging, 2019, 6, 1.	1.5	8
33	Multi-organ segmentation in clinical-computed tomography for patient-specific image quality and dose metrology. , 2019, , .		7
34	Impact of energy threshold on material quantification of contrast agents in photon-counting CT. , 2019, , .		1
35	Anatomically- and computationally-informed hepatic contrast perfusion simulations for use in virtual clinical trials. , 2019, , .		3
36	Trade-off between spatial details and motion artifact in multi-detector CT: A virtual clinical trial with 4D textured human models. , 2019, , .		0

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37	A framework for realistic virtual clinical trials in photon counting computed tomography. , 2019, , .		0
38	Patient-informed and physiology-based modelling of contrast dynamics in cross-sectional imaging. , 2019, , .		1
39	A comprehensive GPU-based framework for scatter estimation in single source, dual source, and photon-counting CT. , 2019, , .		1
40	Dynamic chest radiography for pulmonary function diagnosis: A validation study using 4D extended cardiac-torso (XCAT) phantom. , 2019, , .		1
41	Modeling Lung Architecture in the XCAT Series of Phantoms: Physiologically Based Airways, Arteries and Veins. IEEE Transactions on Medical Imaging, 2018, 37, 693-702.	8.9	44
42	How reliable are texture measurements?. , 2018, , .		4
43	Virtual clinical trial in action: textured XCAT phantoms and scanner-specific CT simulator to characterize noise across CT reconstruction algorithms. , 2018, , .		3
44	From patient-informed to patient-specific organ dose estimation in clinical computed tomography. , 2018, , .		6
45	A rapid GPU-based Monte-Carlo simulation tool for individualized dose estimations in CT. , 2018, , .		6
46	Realistic lesion simulation: application of hyperelastic deformation to lesion-local environment in lung CT. , 2018, , .		2
47	Development of a fast, voxel-based, and scanner-specific CT simulator for image-quality-based virtual clinical trials. , 2018, , .		4
48	Airways, vasculature, and interstitial tissue: anatomically informed computational modeling of human lungs for virtual clinical trials. Proceedings of SPIE, 2017, , .	0.8	7
49	The Effect of Contrast Material on Radiation Dose at CT: Part II. A Systematic Evaluation across 58 Patient Models. Radiology, 2017, 283, 749-757.	7.3	59
50	Patient‐specific quantification of image quality: An automated technique for measuring the distribution of organ Hounsfield units in clinical chest <scp>CT</scp> images. Medical Physics, 2017, 44, 4736-4746.	3.0	33
51	Effect of Iodine-based Contrast Material on Radiation Dose at CT. Radiology, 2017, 285, 1053-1054.	7.3	0
52	A technique for multi-dimensional optimization of radiation dose, contrast dose, and image quality in CT imaging. , 2016, , .		0
53	Prediction of glioblastoma multiforme response to bevacizumab treatment using diffusion and perfusion imaging. , 2015, , .		0