Ehsan Samei

List of Publications by Year
in descending order

633 papers	13,156 citations	22153 59 h-index	37204 96 g-index
666 all docs	666 docs citations	666 times ranked	6729 citing authors

#	Article	IF	Citations
1	U.S. Diagnostic Reference Levels and Achievable Doses for 10 Pediatric CT Examinations. Radiology, 2022, 302, 164-174.	7.3	29
2	Medical Physics 3.0 and Its Relevance to Radiology. Journal of the American College of Radiology, 2022, 19, 13-19.	1.8	2
3	Classification of Multiple Diseases on Body CT Scans Using Weakly Supervised Deep Learning. Radiology: Artificial Intelligence, 2022, 4, e210026.	5.8	6
4	Reduced-Dose Deep Learning Reconstruction for Abdominal CT of Liver Metastases. Radiology, 2022, 303, 90-98.	7.3	45
5	Medical physics 3.0: A renewed model for practicing medical physics in clinical imaging. Physica Medica, 2022, 94, 53-57.	0.7	3
6	Corrections to â€œiPhantom: A Framework for Automated Creation of Individualized Computational Phantoms and its Application to CT Organ Dosimetryâ€•[Aug 21 3061-3072]. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 478-478.	6.3	0
7	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
8	Anatomically and physiologically informed computational model of hepatic contrast perfusion for virtual imaging trials. Medical Physics, 2022, 49, 2938-2951.	3.0	7
9	Technical Note: Controlling the attenuation of 3Dâ€printed physical phantoms for computed tomography with a single material. Medical Physics, 2022, , .	3.0	1
10	Science and practice of imaging physics through 50 years of SPIE Medical Imaging conferences. Journal of Medical Imaging, 2022, 9, 012205.	1.5	2
11	Generative learning approach for radiation dose reduction in Xâ€ray guided cardiac interventions. Medical Physics, 2022, 49, 4071-4081.	3.0	2
12	Comparing two different noise magnitude estimation methods in CT using virtual imaging trials. , 2022, , .		0
13	Virtual versus reality: external validation of COVID-19 classifiers using XCAT phantoms for chest radiography. , 2022, , .		0
14	Optimization of imaging parameters of an investigational photon-counting CT prototype for lung lesion radiomics. , 2022, , .		0
15	Inter- and intra-scan variability for lung imaging quantifications via CT. , 2022, 12031, .		0
16	Development and validation of a generic image-based noise addition software for simulating reduced dose computed tomography images using synthetic projections. , 2022, , .		1
17	Scanner-specific validation of a CT simulator using a COPD-emulated anthropomorphic phantom. , 2022, 12031, .		1
18	Photon-counting CT versus conventional CT for COPD quantifications: intra-scanner optimization and inter-scanner assessments using virtual imaging trials. , 2022, 12031, .		3

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19	Development and clinical applications of a virtual imaging framework for optimizing photon-counting CT. , 2022, , .		5
20	Virtual versus reality: external validation of COVID-19 classifiers using XCAT phantoms for chest computed tomography. , 2022, , .		0
21	Optimization of imaging conditions in pediatric dynamic chest radiography: a virtual imaging trial. , 2022, , .		0
22	Quality or quantity: toward a unified approach for multi-organ segmentation in body CT. , 2022, , .		0
23	A GPUâ€accelerated framework for individualized estimation of organ doses in digital tomosynthesis. Medical Physics, 2022, 49, 891-900.	3.0	2
24	Variability of quantitative measurements of metastatic liver lesions: a multi-radiation-dose-level and multi-reader comparison. Abdominal Radiology, 2021, 46, 226-236.	2.1	3
25	Patient-based Performance Assessment for Pediatric Abdominal CT: An Automated Monitoring System Based on Lesion Detectability and Radiation Dose. Academic Radiology, 2021, 28, 217-224.	2.5	5
26	Minimum perceivable size difference: how well can radiologists visually detect a change in lung nodule size from CT images?. European Radiology, 2021, 31, 1947-1955.	4.5	6
27	A Clinically Driven Task-Based Comparison of Photon Counting and Conventional Energy Integrating CT for Soft Tissue, Vascular, and High-Resolution Tasks. IEEE Transactions on Radiation and Plasma Medical Sciences, 2021, 5, 588-595.	3.7	6
28	Virtual Imaging Trials for Coronavirus Disease (COVID-19). American Journal of Roentgenology, 2021, 216, 362-368.	2.2	9
29	Task-dependent estimability index to assess the quality of cardiac computed tomography angiography for quantifying coronary stenosis. Journal of Medical Imaging, 2021, 8, 013501.	1.5	2
30	Clinical concordance with Image Gently guidelines for pediatric computed tomography: a study across 663,417 CT scans at 53 clinical facilities. Pediatric Radiology, 2021, 51, 800-810.	2.0	5
31	Review of Technical Advancements and Clinical Applications of Photon-counting Computed Tomography in Imaging of the Thorax. Journal of Thoracic Imaging, 2021, 36, 84-94.	1.5	21
32	Structured mentorship program for the ABR international medical graduates alternate pathway for medical physicists in diagnostic imaging. Journal of Applied Clinical Medical Physics, 2021, 22, 351-353.	1.9	0
33	iPhantom: an automated framework in generating personalized computational phantoms for organ-based radiation dosimetry. , 2021, , .		1
34	Comparison of 12 surrogates to characterize CT radiation risk across a clinical population. European Radiology, 2021, 31, 7022-7030.	4.5	16
35	Optimization of CT angiography using physiologically informed computational plaques, dynamic XCAT phantoms, and physics-based CT simulation. , 2021, , .		1
36	A framework to simulate CT images with tube current modulation. , 2021, , .		2

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37	Automated patient-specific and organ-based image quality metrics on dual-energy CT datasets for large scale studies. , 2021, , .		0
38	A probabilistic conditional adversarial neural network to reduce imaging variation in radiography. , 2021, , .		1
39	COPD quantifications via CT imaging: ascertaining the effects of acquisition protocol using virtual imaging trial. , 2021, , .		4
40	An analysis of radiomics features in lung lesions in COVID-19. , 2021, , .		0
41	Estimation of in vivo noise in clinical CT images: comparison and validation of three different methods against ensemble noise gold-standard. , 2021, , .		0
42	Correlation of respiratory changes in lung density on dynamic chest radiographs with changes in the CT value: a computational phantom study. , 2021, , .		0
43	Estimation of lung volume changes from frontal and lateral views of dynamic chest radiography using a convolutional neural network model: a computational phantom study. , 2021, , .		0
44	Classification of COVID-19 in chest radiographs: assessing the impact of imaging parameters using clinical and simulated images. , 2021, , .		1
45	Multi-factorial optimization of imaging parameters for quantifying coronary stenosis in cardiac CT. , 2021, , .		1
46	An experimental evaluation of material separability in photon-counting CT. , 2021, , .		0
47	Multivariate SNR in spectral computed tomography. , 2021, , .		0
48	Cell and extracellular matrix growth theory and its implications for tumorigenesis. BioSystems, 2021, 201, 104331.	2.0	6
49	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
50	Patient-Informed Organ Dose Estimation in Clinical CT: Implementation and Effective Dose Assessment in 1048 Clinical Patients. American Journal of Roentgenology, 2021, 216, 824-834.	2.2	15
51	Variability in image quality and radiation dose within and across 97 medical facilities. Journal of Medical Imaging, 2021, 8, 052105.	1.5	6
52	Correction for Systematic Bias in Radiomics Measurements Due to Variation in Imaging Protocols. Academic Radiology, 2021, , .	2.5	0
53	Effect of deep learning image reconstruction in the prediction of resectability of pancreatic cancer: Diagnostic performance and reader confidence. European Journal of Radiology, 2021, 141, 109825.	2.6	20
54	iPhantom: 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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55	CT Radiomic Features of Superior Mesenteric Artery Involvement in Pancreatic Ductal Adenocarcinoma: A Pilot Study. Radiology, 2021, 301, 610-622.	7.3	36
56	Design and implementation of a practical quality control program for dualâ€energy CT. Journal of Applied Clinical Medical Physics, 2021, 22, 249-260.	1.9	6
57	A scanner-specific framework for simulating CT images with tube current modulation. Physics in Medicine and Biology, 2021, 66, 185010.	3.0	10
58	Comparison of Low Dose Performance of Photon-Counting and Energy Integrating CT. Academic Radiology, 2021, 28, 1754-1760.	2.5	33
59	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
60	Evaluation of Coronary Plaques and Stents with Conventional and Photon-counting CT: Benefits of High-Resolution Photon-counting CT. Radiology: Cardiothoracic Imaging, 2021, 3, e210102.	2.5	25
61	Development, validation, and relevance of in vivo lowâ€contrast task transfer function to estimate detectability in clinical CT images. Medical Physics, 2021, 48, 7698.	3.0	0
62	Patient Communication for Medical Physicists. Journal of the American College of Radiology, 2021, 18, 1601-1604.	1.8	2
63	Key Performance Indicators for Quality Imaging Practice: Why, What, and How. Journal of the American College of Radiology, 2021, , .	1.8	2
64	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
65	Correlation of Algorithmic and Visual Assessment of Lesion Detection in Clinical Images. Academic Radiology, 2020, 27, 847-855.	2.5	7
66	Impact of Colorized Display of Mammograms on Lesion Detection. Journal of Breast Imaging, 2020, 2, 22-28.	1.3	1
67	Noise and spatial resolution properties of a commercially available deep learningâ€based CT reconstruction algorithm. Medical Physics, 2020, 47, 3961-3971.	3.0	113
68	Is regulatory compliance enough to ensure excellence in medicine?. Radiologia Medica, 2020, 125, 904-905.	7.7	12
69	A database of 40 patientâ€based computational models for benchmarking organ dose estimates in CT. Medical Physics, 2020, 47, 6562-6566.	3.0	5
70	Technical Note: Validation of TG 233 phantom methodology to characterize noise and dose in patient CT data. Medical Physics, 2020, 47, 1633-1639.	3.0	12
71	Automated quality control in nuclear medicine using the structured noise index. Journal of Applied Clinical Medical Physics, 2020, 21, 80-86.	1.9	1
72	Quantification of Minimum Detectable Difference in Radiomics Features Across Lesions and CT Imaging Conditions. Academic Radiology, 2020, 28, 1570-1581.	2.5	2

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73	A comparison of COVID-19 and imaging radiation risk in clinical patient populations. Journal of Radiological Protection, 2020, , .	1.1	5
74	Virtual Clinical Trials: Why and What (Special Section Guest Editorial). Journal of Medical Imaging, 2020, 7, 1.	1.5	9
75	Virtual clinical trials in medical imaging: a review. Journal of Medical Imaging, 2020, 7, 1.	1.5	93
76	CT Performance Optimization. , 2020, , 143-164.		0
77	CT-Based Quantification. , 2020, , 289-304.		0
78	CT Practice Monitoring. , 2020, , 199-220.		0
79	A method to assess the performance and the relevance of segmentation in radiomic characterization. , 2020, , .		0
80	CT phantom with 3D anthropomorphic, contrast-enhanced texture. , 2020, , .		0
81	In vivo noise texture estimation: development and validation of an automated methodology. , 2020, , .		2
82	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
83	Prediction of pleural invasion of lung cancer with dynamic chest radiography: a simulation study. , 2020, , .		0
84	Virtual imaging trials: an emerging experimental paradigm in imaging research and practice. , 2020, , .		4
85	Optimization of energy thresholds in photon-counting CT via a virtual clinical trial. , 2020, , .		2
86	Automatic phantom test pattern classification through transfer learning with deep neural networks. , 2020, , .		0
87	Patient-informed modelling of hepatic contrast dynamics in contrast-enhanced CT imaging. , 2020, , .		0
88	Hallway Conversations in Physics. American Journal of Roentgenology, 2020, 215, W50-W52.	2.2	4
89	Modeling Patient-Informed Liver Contrast Perfusion in Contrast-enhanced Computed Tomography. Journal of Computer Assisted Tomography, 2020, 44, 882-886.	0.9	1
90	Performance evaluation of computed tomography systems: Summary of AAPM Task Group 233. Medical Physics, 2019, 46, e735-e756.	3.0	148

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91	A Simulation Paradigm for Evaluation of Subtle Liver Lesions at Pediatric CT: Performance and Confidence. Radiology Imaging Cancer, 2019, 1, e190027.	1.6	1
92	Validation of algorithmic CT image quality metrics with preferences of radiologists. Medical Physics, 2019, 46, 4837-4846.	3.0	18
93	Why physics in medicine?. Physica Medica, 2019, 64, 319-322.	0.7	4
94	A real-time Monte Carlo tool for individualized dose estimations in clinical CT. Physics in Medicine and Biology, 2019, 64, 215020.	3.0	18
95	Organ doses from CT localizer radiographs: Development, validation, and application of a Monte Carlo estimation technique. Medical Physics, 2019, 46, 5262-5272.	3.0	11
96	Development of a scanner-specific simulation framework for photon-counting computed tomography. Biomedical Physics and Engineering Express, 2019, 5, 055008.	1.2	14
97	Reproducibility of CT Radiomic Features within the Same Patient: Influence of Radiation Dose and CT Reconstruction Settings. Radiology, 2019, 293, 583-591.	7.3	172
98	Evaluation of Simulated Lesions as Surrogates to Clinical Lesions for Thoracic CT Volumetry: The Results of an International Challenge. Academic Radiology, 2019, 26, e161-e173.	2.5	4
99	Validation of lesion simulations in clinical CT data for anonymized chest and abdominal CT databases. Medical Physics, 2019, 46, 1931-1937.	3.0	2
100	High-Pitch Wide-Coverage Fast-Kilovoltage-Switching Dual-Energy CT: Impact of Pitch on Noise, Spatial Resolution, and Iodine Quantification in a Phantom Study. American Journal of Roentgenology, 2019, 212, W64-W72.	2.2	8
101	Can Realistic Liver Tissue Surrogates Accurately Quantify the Impact of Reduced-kV Imaging on Attenuation and Contrast of Parenchyma and Lesions?. Academic Radiology, 2019, 26, 640-650.	2.5	2
102	Automation, regulation, and collaboration: Threats and opportunities for clinical medical physics careers in diagnostic imaging and nuclear medicine. Journal of Applied Clinical Medical Physics, 2019, 20, 4-6.	1.9	1
103	Expanding the Concept of Diagnostic Reference Levels to Noise and Dose Reference Levels in CT. American Journal of Roentgenology, 2019, 213, 889-894.	2.2	34
104	Imaging Operation and Infrastructure. , 2019, , 181-216.		0
105	Volumetric X-ray Imaging. , 2019, , 243-269.		0
106	Virtual Unenhanced Images at Dual-Energy CT: Influence on Renal Lesion Characterization. Radiology, 2019, 291, 381-390.	7.3	49
107	Automated Early Identification of an Excessive Air-in-Oil X-ray Tube Artifact That Mimics Acute Cerebral Infarct. Journal of Computer Assisted Tomography, 2019, 43, 18-21.	0.9	1
108	Medical Physics 3.0: Ensuring Quality and Safety in Medical Imaging. Health Physics, 2019, 116, 247-255.	0.5	2

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109	Improved Dose Estimates for Fluoroscopically Guided Lumbar Epidural Injections. Pain Medicine, 2019, 20, 971-978.	1.9	0
110	The Need for Practical and Accurate Measures of Value for Radiology. Journal of the American College of Radiology, 2019, 16, 810-813.	1.8	7
111	Detection of Colorectal Hepatic Metastases Is Superior at Standard Radiation Dose CT versus Reduced Dose CT. Radiology, 2019, 290, 400-409.	7.3	69
112	Can Texture Analysis Be Used to Distinguish Benign From Malignant Adrenal Nodules on Unenhanced CT, Contrast-Enhanced CT, or In-Phase and Opposed-Phase MRI?. American Journal of Roentgenology, 2019, 212, 554-561.	2.2	44
113	DukeSim: A Realistic, Rapid, and Scanner-Specific Simulation Framework in Computed Tomography. IEEE Transactions on Medical Imaging, 2019, 38, 1457-1465.	8.9	49
114	Modeling â€œTexturedâ€•Bones in Virtual Human Phantoms. IEEE Transactions on Radiation and Plasma Medical Sciences, 2019, 3, 47-53.	3.7	29
115	How accurate and precise are CT based measurements of iodine concentration? A comparison of the minimum detectable concentration difference among single source and dual source dual energy CT in a phantom study. European Radiology, 2019, 29, 2069-2078.	4.5	29
116	Incorporation of the Living Heart Model Into the 4-D XCAT Phantom for Cardiac Imaging Research. IEEE Transactions on Radiation and Plasma Medical Sciences, 2019, 3, 54-60.	3.7	13
117	Systematic analysis of bias and variability of morphologic features for lung lesions in computed tomography. Journal of Medical Imaging, 2019, 6, 1.	1.5	9
118	Three-dimensionally-printed anthropomorphic physical phantom for mammography and digital breast tomosynthesis with custom materials, lesions, and uniform quality control region. Journal of Medical Imaging, 2019, 6, 1.	1.5	27
119	Design and fabrication of heterogeneous lung nodule phantoms for assessing the accuracy and variability of measured texture radiomics features in CT. Journal of Medical Imaging, 2019, 6, 1.	1.5	10
120	Systematic analysis of bias and variability of texture measurements in computed tomography. Journal of Medical Imaging, 2019, 6, 1.	1.5	8
121	Multi-organ segmentation in clinical-computed tomography for patient-specific image quality and dose metrology. , 2019, , .		7
122	Deep learning of 3D CT images for organ segmentation using 2D multi-channel SegNet model. , 2019, , .		3
123	Utilizing deformable image registration to create new living human heart models for imaging simulation. , 2019, , .		2
124	Impact of energy threshold on material quantification of contrast agents in photon-counting CT. , 2019, , .		1
125	Modeling dynamic, nutrient-access-based lesion progression using stochastic processes. , 2019, , .		2
126	Anatomically- and computationally-informed hepatic contrast perfusion simulations for use in virtual clinical trials. , 2019, , .		3

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127	Trade-off between spatial details and motion artifact in multi-detector CT: A virtual clinical trial with 4D textured human models. , 2019, , .		0
128	Controlling the position-dependent contrast of 3D printed physical phantoms with a single material. , 2019, , .		1
129	Quantifying truth-based change in radiomics features between CT imaging conditions. , 2019, , .		1
130	Image quality in photon-counting CT images as a function of energy threshold. , 2019, , .		0
131	Cardiac CT estimability index: an ideal estimator in the presence of noise and motion. , 2019, , .		0
132	A framework for realistic virtual clinical trials in photon counting computed tomography. , 2019, , .		0
133	Patient-informed and physiology-based modelling of contrast dynamics in cross-sectional imaging. , 2019, , .		1
134	A comprehensive GPU-based framework for scatter estimation in single source, dual source, and photon-counting CT. , 2019, , .		1
135	Dynamic chest radiography for pulmonary function diagnosis: A validation study using 4D extended cardiac-torso (XCAT) phantom. , 2019, , .		1
136	Accuracy and variability of radiomics in photon-counting CT: texture features and lung lesion morphology. , 2019, , .		1
137	Using inkjet 3D printing to create contrast-enhanced textured physical phantoms for CT. , 2019, , .		4
138	Special Section Guest Editorial: Special Section on 3D Printing in Medical Imaging. Journal of Medical Imaging, 2019, 6, 1.	1.5	26
139	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
140	Interâ€laboratory comparison of channelized hotelling observer computation. Medical Physics, 2018, 45, 3019-3030.	3.0	15
141	A Third-Generation Adaptive Statistical Iterative Reconstruction Technique: Phantom Study of Image Noise, Spatial Resolution, Lesion Detectability, and Dose Reduction Potential. American Journal of Roentgenology, 2018, 210, 1301-1308.	2.2	59
142	Clinically Acceptable Optimized Dose Reduction in Computed Tomographic Imaging of Necrotizing Pancreatitis Using a Noise Addition Software Tool. Journal of Computer Assisted Tomography, 2018, 42, 197-203.	0.9	1
143	Application of the 4-D XCAT Phantoms in Biomedical Imaging and Beyond. IEEE Transactions on Medical Imaging, 2018, 37, 680-692.	8.9	65
144	Report of <scp>AAPM</scp> Task Group 162: Software for planar image quality metrology. Medical Physics, 2018, 45, e32-e39.	3.0	11

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145	The First Moments of Medical Image Perception. , 2018, , 188-196.		2
146	Image Quality and Its Clinical Relevance. , 2018, , 197-212.		0
147	Value and Limitations of Observer Models. , 2018, , 300-304.		0
148	Breast Screen Reader Assessment Strategy (BREAST): A Research Infrastructure with a Translational Objective. , 2018, , 343-356.		4
149	Signal Detection in Radiology. , 2018, , 49-75.		1
150	Perceptual Factors in Reading Medical Images. , 2018, , 95-106.		0
151	Cognitive Factors in Reading Medical Images: Thinking Processes in Image Interpretation. , 2018, , 107-120.		0
152	Satisfaction of Search in Radiology. , 2018, , 121-166.		2
153	Memory Effects and Experimental Design. , 2018, , 263-275.		0
154	Perception of Volumetric Data. , 2018, , 307-327.		1
155	Performance Assessment Using Standardized Data Sets: The PERFORMS Scheme in Breast Screening and Other Domains. , 2018, , 328-342.		5
156	CAD: An Image Perception Perspective. , 2018, , 359-373.		0
157	Evaluation of CAD and Radiomic Tools. , 2018, , 389-406.		0
158	Quantitative Imaging: Images to Numbers. , 2018, , 407-414.		2
159	Ergonomics 2.0: Fatigue in Medical Imaging. , 2018, , 483-494.		1
160	Perception Issues in Pathology. , 2018, , 495-505.		0
161	Perception in Context. , 2018, , 82-92.		0
162	Display Optimization from a Physics Perspective. , 2018, , 440-451.		0

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163	Multireader ROC Analysis. , 2018, , 245-262.		0
164	Display Optimization from a Perception Perspective. , 2018, , 452-469.		0
165	Receiver Operating Characteristic Analysis: Basic Concepts and Practical Applications. , 2018, , 227-244.		2
166	Optimization of 2D and 3D Radiographic Imaging Systems. , 2018, , 417-439.		1
167	Implementation of Observer Models. , 2018, , 289-299.		0
168	Medical Image Perception. , 2018, , 1-8.		0
169	A Short History of Image Perception in Medical Radiology. , 2018, , 11-22.		1
170	Spatial Vision Research without Noise. , 2018, , 23-27.		0
171	Signal Detection Theory: A Brief History. , 2018, , 28-48.		3
172	Lessons from Dinners with the Giants of Modern Image Science*. , 2018, , 76-81.		0
173	Acquiring Expertise in Radiologic Image Interpretation. , 2018, , 167-187.		2
174	Designing Perception Experiments. , 2018, , 215-226.		0
175	Observer Models as a Surrogate to Perception Experiments. , 2018, , 276-288.		0
176	Common Designs of CAD Studies. , 2018, , 374-388.		0
177	Perception and Training. , 2018, , 470-482.		1
178	Medical Image Perception from a Clinical Perspective. , 2018, , 506-512.		0
179	Future of Medical Image Perception. , 2018, , 513-516.		0
180	Medical Physics 3.0, physics for every patient. Journal of Applied Clinical Medical Physics, 2018, 19, 4-5.	1.9	3

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181	Dependency of prescribed CT dose on table height, patient size, and localizer acquisition for one clinical MDCT. Physica Medica, 2018, 55, 56-60.	0.7	7
182	3D taskâ€transfer function representation of the signal transfer properties of lowâ€contrast lesions in FBPâ€•and iterativeâ€reconstructed CT. Medical Physics, 2018, 45, 4977-4985.	3.0	11
183	Medical physics 3.0 versus 1.0: A case study in digital radiography quality control. Journal of Applied Clinical Medical Physics, 2018, 19, 694-707.	1.9	1
184	Why Physics in Medicine?. Journal of the American College of Radiology, 2018, 15, 1008-1012.	1.8	6
185	Medical imaging dose optimisation from ground up: expert opinion of an international summit. Journal of Radiological Protection, 2018, 38, 967-989.	1.1	38
186	Automated quality control assessment of clinical chest images. Medical Physics, 2018, 45, 4377-4391.	3.0	10
187	Redefining and reinvigorating the role of physics in clinical medicine: AÂReport from the <scp>AAPM</scp> Medical Physics 3.0 Ad Hoc Committee. Medical Physics, 2018, 45, e783.	3.0	25
188	Local complexity metrics to quantify the effect of anatomical noise on detectability of lung nodules in chest CT imaging. Journal of Medical Imaging, 2018, 5, 1.	1.5	6
189	3D printed anthropomorphic physical phantom for mammography and DBT with high contrast custom materials, lesions and uniform chest wall region. , 2018, , .		2
190	Can a 3D task transfer function accurately represent the signal transfer properties of low-contrast lesions in non-linear CT systems?. , 2018, , .		2
191	How reliable are texture measurements?. , 2018, , .		4
192	Virtual clinical trial in action: textured XCAT phantoms and scanner-specific CT simulator to characterize noise across CT reconstruction algorithms. , 2018, , .		3
193	From patient-informed to patient-specific organ dose estimation in clinical computed tomography. , 2018, , .		6
194	A rapid GPU-based Monte-Carlo simulation tool for individualized dose estimations in CT. , 2018, , .		6
195	Quantification of uncertainty in the assessment of coronary plaque in CCTA through a dynamic cardiac phantom and 3D-printed plaque model. Journal of Medical Imaging, 2018, 5, 1.	1.5	5
196	Variability of stenosis characterization: impact of coronary vessel motion in cardiac CT. , 2018, , .		1
197	Realistic lesion simulation: application of hyperelastic deformation to lesion-local environment in lung CT. , 2018, , .		2
198	Bias and variability in morphology features of lung lesions across CT imaging conditions. , 2018, , .		1

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199	Development of a fast, voxel-based, and scanner-specific CT simulator for image-quality-based virtual clinical trials. , 2018, , .		4
200	Interchangeability between real and three-dimensional simulated lung tumors in computed tomography: an interalgorithm volumetry study. Journal of Medical Imaging, 2018, 5, 1.	1.5	2
201	The Effect of Contrast Material on Radiation Dose at CT: Part I. Incorporation of Contrast Material Dynamics in Anthropomorphic Phantoms. Radiology, 2017, 283, 739-748.	7.3	40
202	Size-specific optimization of CT protocols based on minimum detectability. Medical Physics, 2017, 44, 1301-1311.	3.0	15
203	Image noise and dose performance across a clinical population: Patient size adaptation as a metric of CT performance. Medical Physics, 2017, 44, 2141-2147.	3.0	19
204	An atlas-based organ dose estimator for tomosynthesis and radiography. Proceedings of SPIE, 2017, , .	0.8	0
205	In-vivo detectability index: development and validation of an automated methodology. Proceedings of SPIE, 2017, , .	0.8	0
206	Comparison of effects of dose on image quality in digital breast tomosynthesis across multiple vendors. , 2017, , .		0
207	Improved virtual cardiac phantom with variable diastolic filling rates and coronary artery velocities. Proceedings of SPIE, 2017, , .	0.8	0
208	Quantification of the uncertainty in coronary CTA plaque measurements using dynamic cardiac phantom and 3D-printed plaque models. , 2017, , .		0
209	Accuracy and variability of texture-based radiomics features of lung lesions across CT imaging conditions. Proceedings of SPIE, 2017, , .	0.8	5
210	Third generation anthropomorphic physical phantom for mammography and DBT: incorporating voxelized 3D printing and uniform chest wall QC region. Proceedings of SPIE, 2017, , .	0.8	6
211	Adaptability index: quantifying CT tube current modulation performance from dose and quality informatics. , 2017, , .		0
212	Effect of Radiation Dose Reduction and Reconstruction Algorithm on Image Noise, Contrast, Resolution, and Detectability of Subtle Hypoattenuating Liver Lesions at Multidetector CT: Filtered Back Projection versus a Commercial Modelâ€"based Iterative Reconstruction Algorithm. Radiology, 2017, 284, 777-787.	7.3	84
213	Variability in Radiation Dose From Repeat Identical CT Examinations: Longitudinal Analysis of 2851 Patients Undergoing 12,635 Thoracoabdominal CT Scans in an Academic Health System. American Journal of Roentgenology, 2017, 208, 1285-1296.	2.2	11
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