

Bob Liu

List of Publications by Year in descending order

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79
papers

2,291
citations

249298

26
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252626

46
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docs citations

79
times ranked

2592
citing authors

#	ARTICLE	IF	CITATIONS
1	Power Spectrum Analysis of Breast Parenchyma with Digital Breast Tomosynthesis Images in a Longitudinal Screening Cohort from Two Vendors. <i>Academic Radiology</i> , 2022, 29, 841-850.	1.3	1
2	Radiation exposure in 101 non-coronary fluoroscopically guided interventional procedures: reference levels of air kerma at the reference point and air kerma area product. <i>British Journal of Radiology</i> , 2022, 95, 20211108.	1.0	4
3	Technical note: Advancing size-specific dose estimates in CT examinations: Dose estimates at longitudinal positions of scans. <i>Medical Physics</i> , 2022, 49, 1303-1311.	1.6	2
4	Experimental and numerical studies on kV scattered x-ray imaging for real-time image guidance in radiation therapy. <i>Physics in Medicine and Biology</i> , 2021, 66, 045022.	1.6	2
5	Fetal dose evaluation for body CT examinations of pregnant patients during all stages of pregnancy. <i>European Journal of Radiology</i> , 2021, 141, 109780.	1.2	2
6	Patient-level dose monitoring in computed tomography: tracking cumulative dose from multiple multi-sequence exams with tube current modulation in children. <i>Pediatric Radiology</i> , 2021, 51, 2498-2506.	1.1	1
7	Effective Dose Assessment for Patients Undergoing Contemporary Fluoroscopically Guided Interventional Procedures. <i>American Journal of Roentgenology</i> , 2020, 214, 158-170.	1.0	20
8	Patients undergoing recurrent CT scans: assessing the magnitude. <i>European Radiology</i> , 2020, 30, 1828-1836.	2.3	105
9	Quantitative evaluation of transmission properties of breast tissue equivalent materials under Compton scatter imaging setup. <i>Physica Medica</i> , 2020, 72, 32-38.	0.4	0
10	Radiation Effective Dose Above 100 mSv From Fluoroscopically Guided Intervention: Frequency and Patient Medical Condition. <i>American Journal of Roentgenology</i> , 2020, 215, 433-440.	1.0	37
11	A method of rapid quantification of patient-specific organ doses for CT using deep-learning-based multi-organ segmentation and GPU-accelerated Monte Carlo dose computing. <i>Medical Physics</i> , 2020, 47, 2526-2536.	1.6	49
12	Data of CT bow tie filter profiles from three modern CT scanners. <i>Data in Brief</i> , 2019, 25, 104261.	0.5	8
13	Exam-level dose monitoring in CT : Quality metric consideration for multiple series acquisitions. <i>Medical Physics</i> , 2019, 46, 1575-1580.	1.6	8
14	Radiation Dose Monitoring for Fluoroscopically Guided Interventional Procedures: Effect on Patient Radiation Exposure. <i>Radiology</i> , 2019, 290, 744-749.	3.6	20
15	Radiation dose dependence on subject size in abdominal computed tomography: Water phantom and patient model comparison. <i>Medical Physics</i> , 2018, 45, 2309-2317.	1.6	3
16	Comprehensive evaluation of broad-beam transmission of patient supports from three fluoroscopy-guided interventional systems. <i>Medical Physics</i> , 2018, 45, 1425-1432.	1.6	10
17	Quantifying the effect of slice thickness, intravenous contrast and tube current on muscle segmentation: Implications for body composition analysis. <i>European Radiology</i> , 2018, 28, 2455-2463.	2.3	52
18	Experimental validation of two dual-energy CT methods for proton therapy using heterogeneous tissue samples. <i>Medical Physics</i> , 2018, 45, 48-59.	1.6	61

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19	Validated reconstructions of geometries of nasal cavities from CT scans. Biomedical Physics and Engineering Express, 2018, 4, 045022.	0.6	10
20	Radiation Dose and Risk Estimates of CT-Guided Percutaneous Liver Ablations and Factors Associated with Dose Reduction. CardioVascular and Interventional Radiology, 2018, 41, 1935-1942.	0.9	4
21	Procedure-specific CT Dose and Utilization Factors for CT-guided Interventional Procedures. Radiology, 2018, 289, 150-157.	3.6	25
22	Point Organ Radiation Dose in Abdominal CT: Effect of Patient Off-Centering in an Experimental Human Cadaver Study. Radiation Protection Dosimetry, 2017, 175, 440-449.	0.4	4
23	Radiation shielding calculation for digital breast tomosynthesis rooms with an updated workload survey. Journal of Radiological Protection, 2017, 37, 230-246.	0.6	3
24	Direct and fast measurement of $\langle \text{CT} \rangle$ beam filter profiles with simultaneous geometrical calibration. Medical Physics, 2017, 44, 57-70.	1.6	11
25	Assessment of radiation dose from abdominal quantitative CT with short scan length. British Journal of Radiology, 2017, 90, 20160931.	1.0	3
26	Characterization of radiation dose from tube current modulated CT examinations with considerations of both patient size and variable tube current. Medical Physics, 2017, 44, 5413-5422.	1.6	6
27	Dosimetry in Micro-computed Tomography: a Review of the Measurement Methods, Impacts, and Characterization of the Quantum CX Imaging System. Molecular Imaging and Biology, 2017, 19, 499-511.	1.3	35
28	Scatter radiation intensities around a clinical digital breast tomosynthesis unit and the impact on radiation shielding considerations. Medical Physics, 2016, 43, 1096-1110.	1.6	9
29	A study of the midpoint dose to CTDI_{vol} ratio: Implications for CT dose evaluation. Medical Physics, 2016, 43, 5878-5888.	1.6	8
30	Radiation exposure from videofluoroscopic swallow studies in children with a type 1 laryngeal cleft and pharyngeal dysphagia: A retrospective review. International Journal of Pediatric Otorhinolaryngology, 2016, 89, 92-96.	0.4	37
31	Modified Best-Practice Algorithm to Reduce the Number of Postoperative Videofluoroscopic Swallow Studies in Patients With Type 1 Laryngeal Cleft Repair. JAMA Otolaryngology - Head and Neck Surgery, 2016, 142, 851.	1.2	20
32	Initial Clinical Experience With Extremity Cone-Beam CT of the Foot and Ankle in Pediatric Patients. American Journal of Roentgenology, 2016, 206, 431-435.	1.0	28
33	Comparison of Measured and Estimated CT Organ Doses for Modulated and Fixed Tube Current. Academic Radiology, 2016, 23, 634-642.	1.3	4
34	CT dose equilibration and energy absorption in polyethylene cylinders with diameters from 6 to 55 cm. Medical Physics, 2015, 42, 2882-2891.	1.6	2
35	A new technique to characterize CT scanner bowtie filter attenuation and applications in human cadaver dosimetry simulations. Medical Physics, 2015, 42, 6274-6282.	1.6	13
36	Data-Driven CT Protocol Review and Management—Experience From a Large Academic Hospital. Journal of the American College of Radiology, 2015, 12, 267-272.	0.9	11

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37	<i>VirtualDose</i> : a software for reporting organ doses from CT for adult and pediatric patients. <i>Physics in Medicine and Biology</i> , 2015, 60, 5601-5625.	1.6	92
38	Longitudinal dose distribution and energy absorption in PMMA and water cylinders undergoing CT scans. <i>Medical Physics</i> , 2014, 41, 101912.	1.6	6
39	Radiation dose calculations for CT scans with tube current modulation using the approach to equilibrium function. <i>Medical Physics</i> , 2014, 41, 111910.	1.6	10
40	<i>In vitro</i> dose measurements in a human cadaver with abdomen/pelvis CT scans. <i>Medical Physics</i> , 2014, 41, 091911.	1.6	9
41	Entrance skin dosimetry and size-specific dose estimate from pediatric chest CTA. <i>Journal of Cardiovascular Computed Tomography</i> , 2014, 8, 97-107.	0.7	21
42	A study of the short-to long-term phantom dose ratios for CT scanning without table translation. <i>Medical Physics</i> , 2014, 41, 091912.	1.6	9
43	Novel Lead-Free Drape Applied to the X-Ray Detector Protects against Scatter Radiation in the Angiography Suite. <i>Journal of Vascular and Interventional Radiology</i> , 2014, 25, 1200-1208.	0.2	4
44	A method to acquire CT organ dose map using OSL dosimeters and ATOM anthropomorphic phantoms. <i>Medical Physics</i> , 2013, 40, 081918.	1.6	32
45	Workload and transmission data for the installation of a digital breast tomosynthesis system. <i>Medical Physics</i> , 2013, 40, 063901.	1.6	6
46	Patients with Testicular Cancer Undergoing CT Surveillance Demonstrate a Pitfall of Radiation-induced Cancer Risk Estimates: The Timing Paradox. <i>Radiology</i> , 2013, 266, 896-904.	3.6	35
47	Body CT Scanning in Young Adults: Examination Indications, Patient Outcomes, and Risk of Radiation-induced Cancer. <i>Radiology</i> , 2013, 267, 460-469.	3.6	62
48	Fetal doses to pregnant patients from CT with tube current modulation calculated using Monte Carlo simulations and realistic phantoms. <i>Radiation Protection Dosimetry</i> , 2013, 155, 64-72.	0.4	27
49	Calculations of two new dose metrics proposed by AAPM Task Group 111 using the measurements with standard CT dosimetry phantoms. <i>Medical Physics</i> , 2013, 40, 081914.	1.6	15
50	Monte Carlo assessment of CT dose equilibration in PMMA and water cylinders with diameters from 6 to 55 cm. <i>Medical Physics</i> , 2013, 40, 031903.	1.6	26
51	Interventional Radiology in Pregnancy Complications: Indications, Technique, and Methods for Minimizing Radiation Exposure. <i>Radiographics</i> , 2012, 32, 255-274.	1.4	56
52	Radiation Dose Management: Part 2, Estimating Fetal Radiation Risk From CT During Pregnancy. <i>American Journal of Roentgenology</i> , 2012, 198, W352-W356.	1.0	45
53	Estimation of the weighted CTDI _w for multislice CT examinations. <i>Medical Physics</i> , 2012, 39, 901-905.	1.6	18
54	Evolution of Coronary Computed Tomography Radiation Dose Reduction at a Tertiary Referral Center. <i>American Journal of Medicine</i> , 2012, 125, 764-772.	0.6	43

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55	X-ray spectral measurements for tungsten anode from 20 to 49 kVp on a digital breast tomosynthesis system. <i>Medical Physics</i> , 2012, 39, 3493-3500.	1.6	16
56	Transmission of broad W/Rh and W/Al (target/filter) x-ray beams operated at 25-49 kVp through common shielding materials. <i>Medical Physics</i> , 2012, 39, 4132-4138.	1.6	9
57	Equations for CT dose calculations on axial lines based on the principle of symmetry. <i>Medical Physics</i> , 2012, 39, 5347-5352.	1.6	13
58	Sensitivity analysis of a geometric calibration method using projection matrices for digital tomosynthesis systems. <i>Medical Physics</i> , 2011, 38, 202-209.	1.6	16
59	Frequent Body CT Scanning of Young Adults: Indications, Outcomes, and Risk for Radiation-Induced Cancer. <i>Journal of the American College of Radiology</i> , 2011, 8, 501-507.	0.9	31
60	Body Computed Tomography During Pregnancy: Utilization Trends, Examination Indications, and Fetal Radiation Doses. <i>Obstetrical and Gynecological Survey</i> , 2011, 66, 271-273.	0.2	0
61	A practical approach to estimate the weighted CT dose index over an infinite integration length. <i>Physics in Medicine and Biology</i> , 2011, 56, 5789-5803.	1.6	26
62	Automated Extraction of Radiation Dose Information From CT Dose Report Images. <i>American Journal of Roentgenology</i> , 2011, 196, W781-W783.	1.0	17
63	Body CT During Pregnancy: Utilization Trends, Examination Indications, and Fetal Radiation Doses. <i>American Journal of Roentgenology</i> , 2011, 196, 146-151.	1.0	60
64	Objective characterization of GE Discovery CT750 HD scanner: Gemstone spectral imaging mode. <i>Medical Physics</i> , 2011, 38, 1178-1188.	1.6	182
65	Quantifying breast density with a cone-beam breast CT. <i>Proceedings of SPIE</i> , 2010, , .	0.8	2
66	A generic geometric calibration method for tomographic imaging systems with flat-panel detectors: A detailed implementation guide. <i>Medical Physics</i> , 2010, 37, 3844-3854.	1.6	68
67	Dose Reduction and Compliance with Pediatric CT Protocols Adapted to Patient Size, Clinical Indication, and Number of Prior Studies. <i>Radiology</i> , 2009, 252, 200-208.	3.6	176
68	A Comprehensive Electrocardiogram-Gated 64-Slice Multidetector Computed Tomography Imaging Protocol to Visualize the Coronary Arteries, Thoracic Aorta, and Pulmonary Vasculature in a Single Breath Hold. <i>Journal of Computer Assisted Tomography</i> , 2009, 33, 225-232.	0.5	23
69	Characterization of scatter in cone-beam CT breast imaging: Comparison of experimental measurements and Monte Carlo simulation. <i>Medical Physics</i> , 2009, 36, 857-869.	1.6	58
70	A computer simulation study comparing lesion detection accuracy with digital mammography, breast tomosynthesis, and cone-beam CT breast imaging. <i>Medical Physics</i> , 2006, 33, 1041-1052.	1.6	145
71	Evaluating the impact of x-ray spectral shape on image quality in flat-panel CT breast imaging. <i>Medical Physics</i> , 2006, 34, 5-24.	1.6	50
72	Comparison of Scatter/Primary Measurements with GATE Simulations for X-Ray Spectra in Cone Beam CT Mammography. , 2006, , .		3

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73	Classification of compressed breast shapes for the design of equalization filters in x-ray mammography. Medical Physics, 1998, 25, 937-948.	1.6	33
74	Investigation of the line-pair pattern method for evaluating mammographic focal spot performance. Medical Physics, 1997, 24, 11-15.	1.6	8
75	Hydrodynamic stability analysis of burning bubbles in electroweak theory and in QCD. Physical Review D, 1993, 48, 2477-2492.	1.6	82
76	Bubble nucleation and growth at a baryon-number-producing electroweak phase transition. Physical Review D, 1992, 46, 2668-2688.	1.6	130
77	Correlated random-phase-approximation study of an anyon gas. Physical Review B, 1991, 43, 13736-13738.	1.1	2
78	Self-consistency equation for the order parameter and restoration of chiral symmetry. Physical Review D, 1988, 37, 190-194.	1.6	7
79	Partition Temperature and e^+e^- Annihilation. Europhysics Letters, 1988, 6, 19-23.	0.7	0