

Bob Liu

List of Publications by Year in descending order

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79
papers

2,291
citations

218677
26
h-index

223800
46
g-index

79
all docs

79
docs citations

79
times ranked

2390
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. Academic Radiology, 2022, 29, 841-850.	2.5	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. British Journal of Radiology, 2022, 95, 20211108.	2.2	4
3	Technical note: Advancing size-specific dose estimates in CT examinations: Dose estimates at longitudinal positions of scans. Medical Physics, 2022, 49, 1303-1311.	3.0	2
4	Experimental and numerical studies on kV scattered x-ray imaging for real-time image guidance in radiation therapy. Physics in Medicine and Biology, 2021, 66, 045022.	3.0	2
5	Fetal dose evaluation for body CT examinations of pregnant patients during all stages of pregnancy. European Journal of Radiology, 2021, 141, 109780.	2.6	2
6	Patient-level dose monitoring in computed tomography: tracking cumulative dose from multiple multi-sequence exams with tube current modulation in children. Pediatric Radiology, 2021, 51, 2498-2506.	2.0	1
7	Effective Dose Assessment for Patients Undergoing Contemporary Fluoroscopically Guided Interventional Procedures. American Journal of Roentgenology, 2020, 214, 158-170.	2.2	20
8	Patients undergoing recurrent CT scans: assessing the magnitude. European Radiology, 2020, 30, 1828-1836.	4.5	105
9	Quantitative evaluation of transmission properties of breast tissue equivalent materials under Compton scatter imaging setup. Physica Medica, 2020, 72, 32-38.	0.7	0
10	Radiation Effective Dose Above 100 mSv From Fluoroscopically Guided Intervention: Frequency and Patient Medical Condition. American Journal of Roentgenology, 2020, 215, 433-440.	2.2	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. Medical Physics, 2020, 47, 2526-2536.	3.0	49
12	Data of CT bow tie filter profiles from three modern CT scanners. Data in Brief, 2019, 25, 104261.	1.0	8
13	Exam-level dose monitoring in CT : Quality metric consideration for multiple series acquisitions. Medical Physics, 2019, 46, 1575-1580.	3.0	8
14	Radiation Dose Monitoring for Fluoroscopically Guided Interventional Procedures: Effect on Patient Radiation Exposure. Radiology, 2019, 290, 744-749.	7.3	20
15	Radiation dose dependence on subject size in abdominal computed tomography: Water phantom and patient model comparison. Medical Physics, 2018, 45, 2309-2317.	3.0	3
16	Comprehensive evaluation of broad-beam transmission of patient supports from three fluoroscopy-guided interventional systems. Medical Physics, 2018, 45, 1425-1432.	3.0	10
17	Quantifying the effect of slice thickness, intravenous contrast and tube current on muscle segmentation: Implications for body composition analysis. European Radiology, 2018, 28, 2455-2463.	4.5	52
18	Experimental validation of two dual-energy CT methods for proton therapy using heterogeneous tissue samples. Medical Physics, 2018, 45, 48-59.	3.0	61

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19	Validated reconstructions of geometries of nasal cavities from CT scans. Biomedical Physics and Engineering Express, 2018, 4, 045022.	1.2	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.	2.0	4
21	Procedure-specific CT Dose and Utilization Factors for CT-guided Interventional Procedures. Radiology, 2018, 289, 150-157.	7.3	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.	0.8	4
23	Radiation shielding calculation for digital breast tomosynthesis rooms with an updated workload survey. Journal of Radiological Protection, 2017, 37, 230-246.	1.1	3
24	Direct and fast measurement of <scp>CT</scp> beam filter profiles with simultaneous geometrical calibration. Medical Physics, 2017, 44, 57-70.	3.0	11
25	Assessment of radiation dose from abdominal quantitative CT with short scan length. British Journal of Radiology, 2017, 90, 20160931.	2.2	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.	3.0	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.	2.6	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.	3.0	9
29	A study of the midpoint dose to CTDI_{vol} ratio: Implications for CT dose evaluation. Medical Physics, 2016, 43, 5878-5888.	3.0	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.	1.0	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.	2.2	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.	2.2	28
33	Comparison of Measured and Estimated CT Organ Doses for Modulated and Fixed Tube Current:. Academic Radiology, 2016, 23, 634-642.	2.5	4
34	CT dose equilibration and energy absorption in polyethylene cylinders with diameters from 6 to 55 cm. Medical Physics, 2015, 42, 2882-2891.	3.0	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.	3.0	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.	1.8	11

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37	<i>VirtualDose</i>: a software for reporting organ doses from CT for adult and pediatric patients. Physics in Medicine and Biology, 2015, 60, 5601-5625.	3.0	92
38	Longitudinal dose distribution and energy absorption in PMMA and water cylinders undergoing CT scans. Medical Physics, 2014, 41, 101912.	3.0	6
39	Radiation dose calculations for CT scans with tube current modulation using the approach to equilibrium function. Medical Physics, 2014, 41, 111910.	3.0	10
40	<i>In vitro</i> dose measurements in a human cadaver with abdomen/pelvis CT scans. Medical Physics, 2014, 41, 091911.	3.0	9
41	Entrance skin dosimetry and size-specific dose estimate from pediatric chest CTA. Journal of Cardiovascular Computed Tomography, 2014, 8, 97-107.	1.3	21
42	A study of the short-to long-term phantom dose ratios for CT scanning without table translation. Medical Physics, 2014, 41, 091912.	3.0	9
43	Novel Lead-Free Drape Applied to the X-Ray Detector Protects against Scatter Radiation in the Angiography Suite. Journal of Vascular and Interventional Radiology, 2014, 25, 1200-1208.	0.5	4
44	A method to acquire CT organ dose map using OSL dosimeters and ATOM anthropomorphic phantoms. Medical Physics, 2013, 40, 081918.	3.0	32
45	Workload and transmission data for the installation of a digital breast tomosynthesis system. Medical Physics, 2013, 40, 063901.	3.0	6
46	Patients with Testicular Cancer Undergoing CT Surveillance Demonstrate a Pitfall of Radiation-induced Cancer Risk Estimates: The Timing Paradox. Radiology, 2013, 266, 896-904.	7.3	35
47	Body CT Scanning in Young Adults: Examination Indications, Patient Outcomes, and Risk of Radiation-induced Cancer. Radiology, 2013, 267, 460-469.	7.3	62
48	Fetal doses to pregnant patients from CT with tube current modulation calculated using Monte Carlo simulations and realistic phantoms. Radiation Protection Dosimetry, 2013, 155, 64-72.	0.8	27
49	Calculations of two new dose metrics proposed by AAPM Task Group 111 using the measurements with standard CT dosimetry phantoms. Medical Physics, 2013, 40, 081914.	3.0	15
50	Monte Carlo assessment of CT dose equilibration in PMMA and water cylinders with diameters from 6 to 55 cm. Medical Physics, 2013, 40, 031903.	3.0	26
51	Interventional Radiology in Pregnancy Complications: Indications, Technique, and Methods for Minimizing Radiation Exposure. Radiographics, 2012, 32, 255-274.	3.3	56
52	Radiation Dose Management: Part 2, Estimating Fetal Radiation Risk From CT During Pregnancy. American Journal of Roentgenology, 2012, 198, W352-W356.	2.2	45
53	Estimation of the weighted CTDI _w for multislice CT examinations. Medical Physics, 2012, 39, 901-905.	3.0	18
54	Evolution of Coronary Computed Tomography Radiation Dose Reduction at a Tertiary Referral Center. American Journal of Medicine, 2012, 125, 764-772.	1.5	43

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55	X-ray spectral measurements for tungsten anode from 20 to 49 kVp on a digital breast tomosynthesis system. Medical Physics, 2012, 39, 3493-3500.	3.0	16
56	Transmission of broad W/Rh and W/Al (target/filter) x-ray beams operated at 25-49 kVp through common shielding materials. Medical Physics, 2012, 39, 4132-4138.	3.0	9
57	Equations for CT dose calculations on axial lines based on the principle of symmetry. Medical Physics, 2012, 39, 5347-5352.	3.0	13
58	Sensitivity analysis of a geometric calibration method using projection matrices for digital tomosynthesis systems. Medical Physics, 2011, 38, 202-209.	3.0	16
59	Frequent Body CT Scanning of Young Adults: Indications, Outcomes, and Risk for Radiation-Induced Cancer. Journal of the American College of Radiology, 2011, 8, 501-507.	1.8	31
60	Body Computed Tomography During Pregnancy: Utilization Trends, Examination Indications, and Fetal Radiation Doses. Obstetrical and Gynecological Survey, 2011, 66, 271-273.	0.4	0
61	A practical approach to estimate the weighted CT dose index over an infinite integration length. Physics in Medicine and Biology, 2011, 56, 5789-5803.	3.0	26
62	Automated Extraction of Radiation Dose Information From CT Dose Report Images. American Journal of Roentgenology, 2011, 196, W781-W783.	2.2	17
63	Body CT During Pregnancy: Utilization Trends, Examination Indications, and Fetal Radiation Doses. American Journal of Roentgenology, 2011, 196, 146-151.	2.2	60
64	Objective characterization of GE Discovery CT750 HD scanner: Gemstone spectral imaging mode. Medical Physics, 2011, 38, 1178-1188.	3.0	182
65	Quantifying breast density with a cone-beam breast CT. Proceedings of SPIE, 2010, , .	0.8	2
66	A generic geometric calibration method for tomographic imaging systems with flat-panel detectors”A detailed implementation guide. Medical Physics, 2010, 37, 3844-3854.	3.0	68
67	Dose Reduction and Compliance with Pediatric CT Protocols Adapted to Patient Size, Clinical Indication, and Number of Prior Studies. Radiology, 2009, 252, 200-208.	7.3	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. Journal of Computer Assisted Tomography, 2009, 33, 225-232.	0.9	23
69	Characterization of scatter in cone-beam CT breast imaging: Comparison of experimental measurements and Monte Carlo simulation. Medical Physics, 2009, 36, 857-869.	3.0	58
70	A computer simulation study comparing lesion detection accuracy with digital mammography, breast tomosynthesis, and cone-beam CT breast imaging. Medical Physics, 2006, 33, 1041-1052.	3.0	145
71	Evaluating the impact of x-ray spectral shape on image quality in flat-panel CT breast imaging. Medical Physics, 2006, 34, 5-24.	3.0	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.	3.0	33
74	Investigation of the line-pair pattern method for evaluating mammographic focal spot performance. Medical Physics, 1997, 24, 11-15.	3.0	8
75	Hydrodynamic stability analysis of burning bubbles in electroweak theory and in QCD. Physical Review D, 1993, 48, 2477-2492.	4.7	82
76	Bubble nucleation and growth at a baryon-number-producing electroweak phase transition. Physical Review D, 1992, 46, 2668-2688.	4.7	130
77	Correlated random-phase-approximation study of an anyon gas. Physical Review B, 1991, 43, 13736-13738.	3.2	2
78	Self-consistency equation for the order parameter and restoration of chiral symmetry. Physical Review D, 1988, 37, 190-194.	4.7	7
79	Partition Temperature and e^+e^- Annihilation. Europhysics Letters, 1988, 6, 19-23.	2.0	0