X George Xu

List of Publications by Year
in descending order

81 papers	3,088 citations	218381 26 h-index	161609 54 g-index
81 all docs	81 docs citations	81 times ranked	2583 citing authors

#	Article	IF	Citations
1	A review of dosimetry studies on external-beam radiation treatment with respect to second cancer induction. Physics in Medicine and Biology, 2008, 53, R193-R241.	1.6	361
2	A boundary-representation method for designing whole-body radiation dosimetry models: pregnant females at the ends of three gestational periodsâ€"RPI-P3, -P6 and -P9. Physics in Medicine and Biology, 2007, 52, 7023-7044.	1.6	229
3	<scp>AAPM TG</scp> 158: Measurement and calculation of doses outside the treated volume from externalâ€beam radiation therapy. Medical Physics, 2017, 44, e391-e429.	1.6	214
4	An exponential growth of computational phantom research in radiation protection, imaging, and radiotherapy: a review of the fifty-year history. Physics in Medicine and Biology, 2014, 59, R233-R302.	1.6	201
5	Second Malignant Neoplasms and Cardiovascular Disease Following Radiotherapy. Journal of the National Cancer Institute, 2012, 104, 357-370.	3.0	187
6	Simulation of organ-specific patient effective dose due to secondary neutrons in proton radiation treatment. Physics in Medicine and Biology, 2005, 50, 4337-4353.	1.6	124
7	Image guidance doses delivered during radiotherapy: Quantification, management, and reduction: Report of the <scp>AAPM</scp> Therapy Physics Committee Task Group 180. Medical Physics, 2018, 45, e84-e99.	1.6	104
8	Assessment of organ-specific neutron equivalent doses in proton therapy using computational whole-body age-dependent voxel phantoms. Physics in Medicine and Biology, 2008, 53, 693-717.	1.6	94
9	VirtualDose: a software for reporting organ doses from CT for adult and pediatric patients. Physics in Medicine and Biology, 2015, 60, 5601-5625.	1.6	92
10	RPI-AM and RPI-AF, a pair of mesh-based, size-adjustable adult male and female computational phantoms using ICRP-89 parameters and their calculations for organ doses from monoenergetic photon beams. Physics in Medicine and Biology, 2009, 54, 5885-5908.	1.6	90
11	Extension of RPI-adult male and female computational phantoms to obese patients and a Monte Carlo study of the effect on CT imaging dose. Physics in Medicine and Biology, 2012, 57, 2441-2459.	1.6	89
12	RADAR Reference Adult, Pediatric, and Pregnant Female Phantom Series for Internal and External Dosimetry. Journal of Nuclear Medicine, 2012, 53, 1807-1813.	2.8	76
13	Monte Carlo modeling of a 6 and 18 MV Varian Clinac medical accelerator for in-field and out-of-field dose calculations: development and validation. Physics in Medicine and Biology, 2009, 54, N43-N57.	1.6	74
14	Deformable adult human phantoms for radiation protection dosimetry: anthropometric data representing size distributions of adult worker populations and software algorithms. Physics in Medicine and Biology, 2010, 55, 3789-3811.	1.6	68
15	Development of a 30-week-pregnant female tomographic model from computed tomography (CT) images for Monte Carlo organ dose calculations. Medical Physics, 2004, 31, 2491-2497.	1.6	59
16	A method of rapid quantification of patientâ€specific organ doses for CT using deepâ€learningâ€based multiâ€organ segmentation and GPUâ€accelerated Monte Carlo dose computing. Medical Physics, 2020, 47, 2526-2536.	1.6	49
17	A comparative study on the risk of second primary cancers in outâ€ofâ€field organs associated with radiotherapy of localized prostate carcinoma using Monte Carloâ€based accelerator and patient models. Medical Physics, 2010, 37, 1987-1994.	1.6	46
18	Assessment of patient organ doses and effective doses using the VIP-Man adult male phantom for selected cone-beam CT imaging procedures during image guided radiation therapy. Radiation Protection Dosimetry, 2008, 131, 431-443.	0.4	41

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19	A comparison of pediatric and adult CT organ dose estimation methods. BMC Medical Imaging, 2017, 17, 28.	1.4	40
20	A feasibility study to calculate unshielded fetal doses to pregnant patients in 6-MV photon treatments using Monte Carlo methods and anatomically realistic phantoms. Medical Physics, 2008, 35, 3054-3061.	1.6	39
21	Monte Carlo calculation of imaging doses from diagnostic multidetector CT and kilovoltage coneâ€beam CT as part of prostate cancer treatment plans. Medical Physics, 2010, 37, 6199-6204.	1.6	35
22	A method of using deep learning to predict threeâ€dimensional dose distributions for intensityâ€modulated radiotherapy of rectal cancer. Journal of Applied Clinical Medical Physics, 2020, 21, 26-37.	0.8	34
23	Monte Carlo modeling of a High-Sensitivity MOSFET dosimeter for low- and medium-energy photon sources. Medical Physics, 2004, 31, 1003-1008.	1.6	33
24	Evaluation of deep learningâ€based autoâ€segmentation algorithms for delineating clinical target volume and organs at risk involving data for 125 cervical cancer patients. Journal of Applied Clinical Medical Physics, 2020, 21, 272-279.	0.8	33
25	A method to acquire CT organ dose map using OSL dosimeters and ATOM anthropomorphic phantoms. Medical Physics, 2013, 40, 081918.	1.6	32
26	The impact of robustness of deformable image registration on contour propagation and dose accumulation for head and neck adaptive radiotherapy. Journal of Applied Clinical Medical Physics, 2018, 19, 185-194.	0.8	30
27	Development of a simulator for radiographic image optimization. Computer Methods and Programs in Biomedicine, 2005, 78, 179-190.	2.6	29
28	Calculated organ doses from selected prostate treatment plans using Monte Carlo simulations and an anatomically realistic computational phantom. Physics in Medicine and Biology, 2009, 54, 5271-5286.	1.6	28
29	ARCHER_{RT} - A GPU-based and photon-electron coupled Monte Carlo dose computing engine for radiation therapy: Software development and application to helical tomotherapy. Medical Physics, 2014, 41, 071709.	1.6	28
30	Dose assessment for the fetus considering scattered and secondary radiation from photon and proton therapy when treating a brain tumor of the mother. Physics in Medicine and Biology, 2016, 61, 683-695.	1.6	28
31	Comparison of two types of adult phantoms in terms of organ doses from diagnostic CT procedures. Physics in Medicine and Biology, 2010, 55, 1441-1451.	1.6	27
32	Comparison of organ doses for patients undergoing balloon brachytherapy of the breast with HDR or Physics, 2010, 37, 662-671.	1.6	27
33	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.	0.4	27
34	Patient-specific organ and effective dose estimates in pediatric oncology computed tomography. Physica Medica, 2018, 45, 146-155.	0.4	27
35	Development of a geometryâ€based respiratory motionâ€“ simulating patient model for radiation treatment dosimetry. Journal of Applied Clinical Medical Physics, 2008, 9, 16-28.	0.8	26
36	Influences of operator head posture and protective eyewear on eye lens doses in interventional radiology: A Monte Carlo Study. Medical Physics, 2019, 46, 2744-2751.	1.6	25

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37	Measurements of non-target organ doses using MOSFET dosemeters for selected IMRT and 3D CRT radiation treatment procedures. Radiation Protection Dosimetry, 2007, 128, 336-342.	0.4	22
38	SAF values for internal photon emitters calculated for the RPI-P pregnant-female models using Monte Carlo methods. Medical Physics, 2008, 35, 3215-3224.	1.6	20
39	MCDNet â€“ A Denoising Convolutional Neural Network to Accelerate Monte Carlo Radiation Transport Simulations: A Proof of Principle With Patient Dose From X-Ray CT Imaging. IEEE Access, 2019, 7, 76680-76689.	2.6	18
40	USE OF THE VIP-MAN MODEL TO CALCULATE ENERGY IMPARTED AND EFFECTIVE DOSE FOR X-RAY EXAMINATIONS. Health Physics, 2004, 86, 174-182.	0.3	17
41	A STUDY OF THE SHIELDING USED TO REDUCE LEAKAGE AND SCATTERED RADIATION TO THE FETUS IN A PREGNANT PATIENT TREATED WITH A 6-MV EXTERNAL X-RAY BEAM. Health Physics, 2009, 97, 581-589.	0.3	17
42	Monte Carlo study of MOSFET dosemeter characteristics: dose dependence on photon energy, direction and dosemeter composition. Radiation Protection Dosimetry, 2005, 113, 40-46.	0.4	16
43	ARCHER, a new Monte Carlo software tool for emerging heterogeneous computing environments. Annals of Nuclear Energy, 2015, 82, 2-9.	0.9	16
44	GPU technology is the hope for near realâ€time Monte Carlo dose calculations. Medical Physics, 2015, 42, 1474-1476.	1.6	14
45	A new technique to characterize CT scanner bowâ€tie filter attenuation and applications in human cadaver dosimetry simulations. Medical Physics, 2015, 42, 6274-6282.	1.6	13
46	The profound effects of patient arm positioning on organ doses from CT procedures calculated using Monte Carlo simulations and deformable phantoms. Radiation Protection Dosimetry, 2015, 164, 368-375.	0.4	13
47	Better radiation weighting factors for neutrons generated from proton treatment are needed. Radiation Protection Dosimetry, 2010, 138, 291-294.	0.4	12
48	Direct and fast measurement of <scp>CT</scp> beam filter profiles with simultaneous geometrical calibration. Medical Physics, 2017, 44, 57-70.	1.6	11
49	Clinical application and improvement of a CNNâ€based autosegmentation model for clinical target volumes in cervical cancer radiotherapy. Journal of Applied Clinical Medical Physics, 2021, 22, 115-125.	0.8	11
50	Radiation Dosimetry of Whole-Body Dual-Tracer 18F-FDG and 11C-Acetate PET/CT for Hepatocellular Carcinoma. Journal of Nuclear Medicine, 2016, 57, 907-912.	2.8	10
51	Photon Activation Analysis for River Sediment Sample Using a 60 MeV Linear Electron Accelerator. Journal of Radioanalytical and Nuclear Chemistry, 2000, 245, 501-507.	0.7	9
52	Fluence-to-absorbed-dose conversion coefficients for neutron beams from 0.001 eV to 100 GeV calculated for a set of pregnant female and fetus models. Physics in Medicine and Biology, 2008, 53, 1425-1446.	1.6	9
53	In vitro dose measurements in a human cadaver with abdomen/pelvis CT scans. Medical Physics, 2014, 41, 091911.	1.6	9
54	CONCEPTUAL DESIGN AND PRELIMINARY RESULTS OF A VR-BASED RADIATION SAFETY TRAINING SYSTEM FOR INTERVENTIONAL RADIOLOGISTS. Radiation Protection Dosimetry, 2020, 190, 58-65.	0.4	9

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55	Endâ€toâ€end unsupervised cycleâ€consistent fully convolutional network for 3D pelvic CTâ€MR deformable registration. Journal of Applied Clinical Medical Physics, 2020, 21, 193-200.	0.8	8
56	Feasibility evaluation of PET scan-time reduction for diagnosing amyloid-Î² levels in Alzheimer's disease patients using a deep-learning-based denoising algorithm. Computers in Biology and Medicine, 2021, 138, 104919.	3.9	8
57	Comparison of effective doses from various monoenergetic particles based on the stylised and the VIP-Man tomographic models. Radiation Protection Dosimetry, 2005, 115, 530-535.	0.4	7
58	EVALUATION OF SECONDARY DOSE AND CANCER RISK FOR OUT-OF-FIELD ORGAN IN ESOPHAGEAL CANCER IMRT IN A CHINESE HOSPITAL USING ATOM PHANTOM MEASUREMENTS. Radiation Protection Dosimetry, 2017, 177, 389-396.	0.4	7
59	DEVELOPMENT OF A SET OF MESH-BASED AND AGE-DEPENDENT CHINESE PHANTOMS AND APPLICATION FOR CT DOSE CALCULATIONS. Radiation Protection Dosimetry, 2018, 179, 370-382.	0.4	6
60	Patient-Specific Organ and Effective Dose Estimates in Adult Oncologic CT. American Journal of Roentgenology, 2020, 214, 738-746.	1.0	6
61	THE EFFECTIVE DOSE EQUIVALENT AND EFFECTIVE DOSE FOR HOT PARTICLES ON THE SKIN. Health Physics, 2005, 89, 53-70.	0.3	5
62	Effective Dose For Patients Undergoing Coronary and Femoral Intravascular Radiotherapy Involving an HDR 192Ir Source. Radiation Protection Dosimetry, 2005, 115, 289-293.	0.4	5
63	Fluence to absorbed foetal dose conversion coefficients for photons in 50 keV-10 GeV calculated using RPI-P models. Radiation Protection Dosimetry, 2008, 131, 159-166.	0.4	5
64	Foetal dose conversion coefficients for ICRP-compliant pregnant models from idealised proton exposures. Radiation Protection Dosimetry, 2009, 133, 65-72.	0.4	5
65	Specific absorbed fractions for internal electron emitters derived for a set of anatomically realistic reference pregnant female models. Radiation Protection Dosimetry, 2010, 138, 20-28.	0.4	5
66	Design and test of a PC-based portable three-dimensional ultrasound software system Ultra3D. Computers in Biology and Medicine, 2008, 38, 244-251.	3.9	4
67	Comparison of Measured and Estimated CT Organ Doses for Modulated and Fixed Tube Current:. Academic Radiology, 2016, 23, 634-642.	1.3	4
68	MONTE CARLO SIMULATION OF OUT-OF-FIELD ORGAN DOSES AND CANCER RISK IN TANZANIA FOR RADIATION THERAPY OF UNILATERAL RETINOBLASTOMA USING A 60Co UNIT. Radiation Protection Dosimetry, 2018, 179, 263-270.	0.4	4
69	Monte carlo study of organ doses and related risk for cancer in Tanzania from scattered photons in cervical radiation treatment involving Co-60 source. Physica Medica, 2019, 62, 13-19.	0.4	4
70	EFFECTIVE DOSE EQUIVALENT FOR POINT GAMMA SOURCES LOCATED 10 CM NEAR THE BODY. Health Physics, 2006, 91, 108-118.	0.3	3
71	THE EPRI EDE CALCULATOR???A SOFTWARE PACKAGE FOR ASSESSING EFFECTIVE DOSE EQUIVALENT FROM HOT PARTICLES ON THE SKIN. Health Physics, 2006, 91, 373-378.	0.3	3
72	Development of a GPU-accelerated Monte Carlo dose calculation module for nuclear medicine, ARCHER-NM: demonstration for a PET/CT imaging procedure. Physics in Medicine and Biology, 2022, 67, 06NT02.	1.6	3

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73	ARCHER, a New Monte Carlo Software Tool for Emerging Heterogeneous Computing Environments. , 2014, , .		2
74	Monte Carlo calculations for reporting patient organ doses from interventional radiology. EPJ Web of Conferences, 2017, 153, 04016.	0.1	1
75	Recent Progress on the Development of Tomographic Models. Japanese Journal of Health Physics, 2006, 41, 188-193.	0.1	1
76	Modeling of Human Anatomy for Radiation Dosimetry: An Example of the VIP-Man Model. ACS Symposium Series, 2006, , 115-130.	0.5	0
77	Monte Carlo Simulation of Performance of a Time-Resolved Range Telescope Using Selected Image Quality Assurance Phantoms. Nuclear Technology, 2011, 175, 58-62.	0.7	0
78	Computational Phantoms for Organ Dose Calculations in Radiation Protection and Imaging. Biological and Medical Physics Series, 2014, , 225-262.	0.3	0
79	Development of the Standalone Package for Enhanced Estimation of Dose Distribution for Space Radiation Applications. Nuclear Technology, 2015, 192, 308-313.	0.7	0
80	Innovations in Computer Technologies Have Impacted Radiation Dosimetry Through Anatomically Realistic Phantoms and Fast Monte Carlo Simulations. Health Physics, 2019, 116, 263-275.	0.3	0
81	Interpolation Method for Calculation of Computed Tomography Dose from Angular Varying Tube Current. , 2014, , .		0