

Wesley S Culberson

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

460
citations

949033

11
h-index

939365

18
g-index

51
all docs

51
docs citations

51
times ranked

507
citing authors

#	ARTICLE	IF	CITATIONS
1	Radiation Biology Irradiator Dose Verification Survey. Radiation Research, 2016, 185, 163-168.	0.7	44
2	Evaluation of radixact motion synchrony for 3D respiratory motion: Modeling accuracy and dosimetric fidelity. Journal of Applied Clinical Medical Physics, 2020, 21, 96-106.	0.8	34
3	Experimental Evolution of Extreme Resistance to Ionizing Radiation in <i>Escherichia coli</i> after 50 Cycles of Selection. Journal of Bacteriology, 2019, 201, .	1.0	30
4	Experimental investigation of GafChromic [®] EBT3 intrinsic energy dependence with kilovoltage x rays, ¹³⁷ Cs, and ⁶⁰ Co. Medical Physics, 2018, 45, 448-459.	1.6	29
5	A systematic characterization of the low-energy photon response of plastic scintillation detectors. Physics in Medicine and Biology, 2016, 61, 5569-5586.	1.6	28
6	Secondary Neutron Dose From a Dynamic Collimation System During Intracranial Pencil Beam Scanning Proton Therapy: A Monte Carlo Investigation. International Journal of Radiation Oncology Biology Physics, 2019, 103, 241-250.	0.4	23
7	Development of a phantom to validate high-dose-rate brachytherapy treatment planning systems with heterogeneous algorithms. Medical Physics, 2015, 42, 1566-1574.	1.6	21
8	The use of TLDs for brachytherapy dosimetry. Radiation Measurements, 2014, 71, 276-281.	0.7	13
9	LET response variability of Gafchromic EBT3 film from a Co calibration in clinical proton beam qualities. Medical Physics, 2019, 46, 2716-2728.	1.6	13
10	An analysis of the ArcCHECK [®] MR diode array's performance for ViewRay quality assurance. Journal of Applied Clinical Medical Physics, 2017, 18, 161-171.	0.8	12
11	Air-kerma strength determination of a new directional 103 Pd source. Medical Physics, 2015, 42, 7144-7152.	1.6	11
12	Technical Note: Optimization of spot and trimmer position during dynamically collimated proton therapy. Medical Physics, 2019, 46, 1922-1930.	1.6	11
13	Experimental and Monte Carlo dosimetric characterization of a 1Âcm 103Pd brachytherapy source. Brachytherapy, 2014, 13, 657-667.	0.2	10
14	Deformable abdominal phantom for the validation of real-time image guidance and deformable dose accumulation. Journal of Applied Clinical Medical Physics, 2019, 20, 122-133.	0.8	10
15	Technical Note: Patient dose from kilovoltage radiographs during motion-synchronized treatments on Radixact [®] . Medical Physics, 2020, 47, 5772-5778.	1.6	10
16	An investigation into the robustness of dynamically collimated proton therapy treatments. Medical Physics, 2020, 47, 3545-3553.	1.6	10
17	Characterization of imaging performance of a novel helical kVCT for use in image-guided and adaptive radiotherapy. Journal of Applied Clinical Medical Physics, 2022, 23, e13648.	0.8	10
18	Insight gained from responses to surveys on reference dosimetry practices. Journal of Applied Clinical Medical Physics, 2017, 18, 182-190.	0.8	9

#	ARTICLE	IF	CITATIONS
19	Development and validation of the Dynamic Collimation Monte Carlo simulation package for pencil beam scanning proton therapy. <i>Medical Physics</i> , 2021, 48, 3172-3185.	1.6	9
20	3D dosimetric validation of ultrasound-guided radiotherapy with a dynamically deformable abdominal phantom. <i>Physica Medica</i> , 2021, 84, 159-167.	0.4	9
21	Windowless extrapolation chamber measurement of surface dose rate from a $^{90}\text{Sr}/^{90}\text{Y}$ ophthalmic applicator. <i>Radiation Measurements</i> , 2018, 108, 34-40.	0.7	8
22	Dosimetric characterization of a new directional low-dose rate brachytherapy source. <i>Medical Physics</i> , 2018, 45, 3848-3860.	1.6	8
23	Characterizing a PTW microDiamond detector in kilovoltage radiation beams. <i>Medical Physics</i> , 2020, 47, 4553-4562.	1.6	8
24	Dose-rate considerations for the INTRABEAM electronic brachytherapy system: Report from the American Association of Physicists in Medicine task group no. 292. <i>Medical Physics</i> , 2020, 47, e913-e919.	1.6	8
25	Air-kerma strength determination of an HDR ^{192}Ir source including a geometric sensitivity study of the seven-distance method. <i>Medical Physics</i> , 2017, 44, 311-320.	1.6	7
26	Technical Note: Characterization of clinical linear accelerator triggering latency for motion management system development. <i>Medical Physics</i> , 2018, 45, 4816-4821.	1.6	7
27	Surface dose rate from a flat $^{106}\text{Ru}/^{106}\text{Rh}$ episcleral plaque measured with a planar windowless extrapolation chamber and un-laminated EBT3 film. <i>Radiation Measurements</i> , 2019, 121, 18-25.	0.7	7
28	A convex windowless extrapolation chamber to measure surface dose rate from $^{106}\text{Ru}/^{106}\text{Rh}$ episcleral plaques. <i>Medical Physics</i> , 2019, 46, 2430-2443.	1.6	6
29	Monte Carlo and Co 60 -based kilovoltage x-ray dosimetry methods. <i>Medical Physics</i> , 2018, 45, 5564-5576.	1.6	5
30	VMAT and IMRT plan-specific correction factors for linac-based ionization chamber dosimetry. <i>Medical Physics</i> , 2019, 46, 913-924.	1.6	5
31	Dosimetry evaluation of the GammaPod stereotactic radiosurgery device based on established AAPM and IAEA protocols. <i>Medical Physics</i> , 2020, 47, 3614-3620.	1.6	5
32	Experimental and Monte Carlo characterization of a dynamic collimation system prototype for pencil beam scanning proton therapy. <i>Medical Physics</i> , 2020, 47, 5343-5356.	1.6	5
33	Dosimetric comparison of DEFCEL and PAGAT formulae paired with an MRI acquisition. <i>Journal of Physics: Conference Series</i> , 2017, 847, 012012.	0.3	4
34	On the stability of well-type ionization chamber source strength calibration coefficients. <i>Medical Physics</i> , 2020, 47, 4491-4501.	1.6	4
35	Effects of variable-width jaw motion on beam characteristics for Radixact Synchrony $^{\text{A}}$. <i>Journal of Applied Clinical Medical Physics</i> , 2021, 22, 175-181.	0.8	4
36	Technical note: On the impact of the kV imaging configuration on doses from planar images during motion-synchronized treatments on Radixact $^{\text{A}}$. <i>Journal of Applied Clinical Medical Physics</i> , 2021, 22, 227-231.	0.8	4

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37	On the implementation of the planar-specific reference field using multidimensional clustering of plan features and alternative strategies for improved dosimetry in modulated clinical linear accelerator treatments. <i>Medical Physics</i> , 2020, 47, 3621-3635.	1.6	3
38	Tracking target/chest relationship changes during motion-synchronized tomotherapy treatments. <i>Medical Physics</i> , 2022, , .	1.6	3
39	Air-kerma modulation effects on the energy spectrum of a ¹³⁷ Cs irradiator using Monte-Carlo techniques. <i>Radiation Measurements</i> , 2016, 95, 9-15.	0.7	2
40	Design of a modulated orthovoltage stereotactic radiosurgery system. <i>Medical Physics</i> , 2017, 44, 3776-3787.	1.6	2
41	Characterization of the energy spectrum of a ¹³⁷ Cs irradiator through measurements using a pulse-mode detector. <i>Radiation Measurements</i> , 2018, 114, 1-7.	0.7	2
42	Investigating aperture-based approximations to model a focused Dynamic Collimation System for pencil beam scanning proton therapy. <i>Biomedical Physics and Engineering Express</i> , 2022, , .	0.6	2
43	Technical Note: Dose gradients and prescription isodose in orthovoltage stereotactic radiosurgery. <i>Medical Physics</i> , 2016, 43, 2072-2080.	1.6	1
44	Prototype modulated orthovoltage stereotactic radiosurgery cones. <i>Radiation Measurements</i> , 2018, 119, 33-41.	0.7	1
45	Calculating dose from a 2.5 MV imaging beam using a commercial treatment planning system. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 25-35.	0.8	1
46	The Effect of Mouse Size on Dose from an X-Rad320 Irradiator. <i>Radiation Research</i> , 2022, , .	0.7	1
47	Using 4D dose accumulation to calculate organ-at-risk dose deviations from motion-synchronized liver and lung tomotherapy treatments. <i>Journal of Applied Clinical Medical Physics</i> , 2022, , e13627.	0.8	1
48	Calibration of the photon component of ¹⁹⁸ Au stents. <i>Brachytherapy</i> , 2005, 4, 51-58.	0.2	0
49	Ionization Chambers to Determine Neutron and Gamma-Ray Kerma in a Research Reactor. <i>IEEE Transactions on Nuclear Science</i> , 2019, 66, 2160-2169.	1.2	0
50	The Impact of Radiation Energy on Dose Homogeneity and Organ Dose in the Göttingen Minipig Total-Body Irradiation Model. <i>Radiation Research</i> , 2020, 194, 544-556.	0.7	0
51	Fiducial visibility on planar images during motion-synchronized tomotherapy treatments. <i>Biomedical Physics and Engineering Express</i> , 2022, 8, 027001.	0.6	0