

Jamie Trapp

List of Publications by Year in descending order

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Version: 2024-02-01

121
papers

1,757
citations

279487

23
h-index

344852

36
g-index

128
all docs

128
docs citations

128
times ranked

1261
citing authors

#	ARTICLE	IF	CITATIONS
1	An experimental study of the dose response of polymer gel dosimeters imaged with x-ray computed tomography. <i>Physics in Medicine and Biology</i> , 2001, 46, 2939-2951.	1.6	122
2	Radiological properties of 3D printed materials in kilovoltage and megavoltage photon beams. <i>Physica Medica</i> , 2017, 38, 111-118.	0.4	86
3	A practical and theoretical definition of very small field size for radiotherapy output factor measurements. <i>Medical Physics</i> , 2014, 41, 041707.	1.6	71
4	Treatment plan complexity metrics for predicting IMRT pre-treatment quality assurance results. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2014, 37, 475-482.	1.4	66
5	Attenuation of diagnostic energy photons by polymer gel dosimeters. <i>Physics in Medicine and Biology</i> , 2002, 47, 4247-4258.	1.6	64
6	A methodological approach to reporting corrected small field relative outputs. <i>Radiotherapy and Oncology</i> , 2013, 109, 350-355.	0.3	58
7	A CAD interface for GEANT4. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2012, 35, 329-334.	1.4	55
8	Dosimetry of cone-defined stereotactic radiosurgery fields with a commercial synthetic diamond detector. <i>Medical Physics</i> , 2014, 41, 111702.	1.6	55
9	Examination of the properties of IMRT and VMAT beams and evaluation against pre-treatment quality assurance results. <i>Physics in Medicine and Biology</i> , 2015, 60, 2587-2601.	1.6	53
10	Monte Carlo-based diode design for correction-less small field dosimetry. <i>Physics in Medicine and Biology</i> , 2013, 58, 4501-4512.	1.6	50
11	Technical Note: Relationships between gamma criteria and action levels: Results of a multicenter audit of gamma agreement index results. <i>Medical Physics</i> , 2016, 43, 1501-1506.	1.6	38
12	A comparison of surface doses for very small field size x-ray beams: Monte Carlo calculations and radiochromic film measurements. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2014, 37, 303-309.	1.4	37
13	The effect of very small air gaps on small field dosimetry. <i>Physics in Medicine and Biology</i> , 2012, 57, 6947-6960.	1.6	36
14	Electron Interaction with Gel Dosimeters: Effective Atomic Numbers for Collisional, Radiative and Total Interaction Processes. <i>Radiation Research</i> , 2009, 171, 123-126.	0.7	34
15	The use of gel dosimetry for verification of electron and photon treatment plans in carcinoma of the scalp. <i>Physics in Medicine and Biology</i> , 2004, 49, 1625-1635.	1.6	33
16	An experimental extrapolation technique using the Gafchromic EBT3 film for relative output factor measurements in small x-ray fields. <i>Medical Physics</i> , 2016, 43, 4687-4692.	1.6	32
17	Dose resolution in gel dosimetry: effect of uncertainty in the calibration function. <i>Physics in Medicine and Biology</i> , 2004, 49, N139-N146.	1.6	28
18	Fast Tessellated Solid Navigation in GEANT4. <i>IEEE Transactions on Nuclear Science</i> , 2012, 59, 1695-1701.	1.2	26

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19	Systematic variations in polymer gel dosimeter calibration due to container influence and deviations from water equivalence. <i>Physics in Medicine and Biology</i> , 2007, 52, 3991-4005.	1.6	24
20	Retrospective evaluation of dosimetric quality for prostate carcinomas treated with 3D conformal, intensity modulated and volumetric modulated arc radiotherapy. <i>Journal of Medical Radiation Sciences</i> , 2013, 60, 131-138.	0.8	24
21	Technical Note: Preliminary investigations into the use of a functionalised polymer to reduce diffusion in Fricke gel dosimeters. <i>Medical Physics</i> , 2015, 42, 6798-6803.	1.6	24
22	Technical Note: Modeling a complex micro-multileaf collimator using the standard BEAMnrc distribution. <i>Medical Physics</i> , 2010, 37, 1761-1767.	1.6	23
23	Predicting the likelihood of QA failure using treatment plan accuracy metrics. <i>Journal of Physics: Conference Series</i> , 2014, 489, 012051.	0.3	23
24	Photon optimizer (PO) vs progressive resolution optimizer (PRO): a conformity- and complexity-based comparison for intensity-modulated arc therapy plans. <i>Medical Dosimetry</i> , 2018, 43, 267-275.	0.4	23
25	A multi-institutional evaluation of machine performance check system on treatment beam output and symmetry using statistical process control. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 71-80.	0.8	22
26	The clinical application of PET/CT: a contemporary review. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2008, 31, 90-109.	1.4	21
27	Adapting a generic BEAMnrc model of the BrainLAB m3 micro-multileaf collimator to simulate a local collimation device. <i>Physics in Medicine and Biology</i> , 2010, 55, N451-N463.	1.6	21
28	Improved image quality for x-ray CT imaging of gel dosimeters. <i>Medical Physics</i> , 2011, 38, 5130-5135.	1.6	19
29	Monitoring Daily QA 3 constancy for routine quality assurance on linear accelerators. <i>Physica Medica</i> , 2016, 32, 1479-1487.	0.4	18
30	Measurement of the three-dimensional distribution of radiation dose in grid therapy. <i>Physics in Medicine and Biology</i> , 2004, 49, N317-N323.	1.6	17
31	Monte Carlo verification of gel dosimetry measurements for stereotactic radiotherapy. <i>Physics in Medicine and Biology</i> , 2012, 57, 3359-3369.	1.6	17
32	Web of Science, Scopus, and Google Scholar citation rates: a case study of medical physics and biomedical engineering: what gets cited and what doesn't? <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016, 39, 817-823.	1.4	17
33	Citations are a good way to determine the quality of research. <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 1145-1148.	1.3	17
34	Radiotherapy Monte Carlo simulation using cloud computing technology. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2012, 35, 497-502.	1.4	16
35	Design and experimental testing of air slab caps which convert commercial electron diodes into dual purpose, correction-free diodes for small field dosimetry. <i>Medical Physics</i> , 2014, 41, 101701.	1.6	16
36	Clinical use of diodes and micro-chambers to obtain accurate small field output factor measurements. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2015, 38, 357-367.	1.4	16

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37	Effects of inaccurate small field dose measurements on calculated treatment doses. Australasian Physical and Engineering Sciences in Medicine, 2016, 39, 747-753.	1.4	16
38	Xylenol orange functionalised polymers to overcome diffusion in Fricke gel radiation dosimeters. Reactive and Functional Polymers, 2018, 132, 81-88.	2.0	16
39	The new Scopus CiteScore formula and the Journal Impact Factor: a look at top ranking journals and middle ranking journals in the Scopus categories of General Physics and Astronomy, Materials Science, General Medicine and Social Sciences. Physical and Engineering Sciences in Medicine, 2020, 43, 739-748.	1.3	16
40	Investigating output and energy variations and their relationship to delivery QA results using Statistical Process Control for helical tomotherapy. Physica Medica, 2017, 38, 105-110.	0.4	15
41	An investigation of the pre-irradiation temporal stability of PAGAT gel dosimeter. Journal of Physics: Conference Series, 2010, 250, 012019.	0.3	12
42	The appearance and effects of metallic implants in CT images. Australasian Physical and Engineering Sciences in Medicine, 2013, 36, 209-217.	1.4	12
43	Field size consistency of nominally matched linacs. Australasian Physical and Engineering Sciences in Medicine, 2015, 38, 289-297.	1.4	12
44	A very low diffusion Fricke gel dosimeter with functionalised xylenol orange-PVA (XOPVA). Physics in Medicine and Biology, 2019, 64, 205017.	1.6	12
45	Distributive quality assurance and delivery of stereotactic ablative radiotherapy treatments amongst beam matched linear accelerators: A feasibility study. Journal of Applied Clinical Medical Physics, 2019, 20, 99-105.	0.8	12
46	Investigation of stereotactic radiotherapy dose using dosimetry film and Monte Carlo simulations. Radiation Measurements, 2011, 46, 1985-1988.	0.7	11
47	Statistical process control and verifying positional accuracy of a cobra motion couch using step wedge quality assurance tool. Journal of Applied Clinical Medical Physics, 2017, 18, 70-79.	0.8	11
48	Investigating the use of aperture shape controller in VMAT treatment deliveries. Medical Dosimetry, 2020, 45, 284-292.	0.4	11
49	An investigation of dose calculation accuracy in intensity-modulated radiotherapy of sites in the head & neck. Physica Medica, 2006, 22, 97-104.	0.4	10
50	Interplay effects during enhanced dynamic wedge deliveries. Physica Medica, 2013, 29, 323-332.	0.4	10
51	Establishing the impact of temporary tissue expanders on electron and photon beam dose distributions. Physica Medica, 2015, 31, 281-285.	0.4	10
52	Technical Note: Calibrating radiochromic film in beams of uncertain quality. Medical Physics, 2016, 43, 5647-5652.	1.6	10
53	A Comparative Study of the Effect of Calibration Conditions on the Water Equivalence of a Range of Gel Dosimeters. IEEE Transactions on Nuclear Science, 2009, 56, 429-436.	1.2	9
54	Validation and automation of the DYNJAWS component module of the BEAMnrc Monte Carlo code. Australasian Physical and Engineering Sciences in Medicine, 2011, 34, 83-90.	1.4	9

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55	Response variation of optically stimulated luminescence dosimeters. <i>Radiation Measurements</i> , 2014, 61, 21-24.	0.7	9
56	Investigating the use of image thresholding in brachytherapy catheter reconstruction. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016, 39, 913-919.	1.4	9
57	Contrast enhancement of EPID images via difference imaging: a feasibility study. <i>Physics in Medicine and Biology</i> , 2010, 55, N533-N545.	1.6	8
58	Dosimetric effects of a high-density spinal implant. <i>Journal of Physics: Conference Series</i> , 2013, 444, 012108.	0.3	8
59	A reduction of diffusion in PVA Fricke hydrogels. <i>Journal of Physics: Conference Series</i> , 2015, 573, 012046.	0.3	8
60	A simple method to account for skin dose enhancement during treatment planning of <sc>VMAT</sc> treatments of patients in contact with immobilization equipment. <i>Journal of Applied Clinical Medical Physics</i> , 2018, 19, 239-245.	0.8	8
61	Tomotherapy treatment site specific planning using statistical process control. <i>Physica Medica</i> , 2018, 53, 32-39.	0.4	8
62	Conservatism in linear accelerator bunker shielding. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2019, 42, 781-787.	1.4	8
63	Monte Carlo evaluation of collapsed-cone convolution calculations in head and neck radiotherapy treatment plans. <i>IFMBE Proceedings</i> , 2013, , 1803-1806.	0.2	8
64	Correcting radiation survey data to account for increased leakage during intensity modulated radiotherapy treatments. <i>Medical Physics</i> , 2013, 40, 111708.	1.6	7
65	Improving the quality of reconstructed X-ray CT images of polymer gel dosimeters: zero-scan coupled with adaptive mean filtering. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2017, 40, 159-165.	1.4	7
66	Technical note: A modified gamma evaluation method for dose distribution comparisons. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 193-200.	0.8	7
67	New name: <i>Physical and Engineering Sciences in Medicine</i> . <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 1-2.	1.3	6
68	Internal calibration of gel dosimeters: A feasibility study. <i>Journal of Physics: Conference Series</i> , 2009, 164, 012014.	0.3	5
69	Quantitative evaluation of polymer gel dosimeters by broadband ultrasound attenuation. <i>Journal of Physics: Conference Series</i> , 2013, 444, 012084.	0.3	5
70	Predatory publishing, hijacking of legitimate journals and impersonation of researchers via special issue announcements: a warning for editors and authors about a new scam. <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 9-10.	1.3	5
71	A review of stereotactic body radiotherapy for the spine. <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 799-824.	1.3	5
72	Occupational and Patient Radiation Dose and Quality Implications of Femoral Access Imaging During Coronary Angiography. <i>Journal of Multidisciplinary Healthcare</i> , 2021, Volume 14, 1807-1818.	1.1	5

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73	Radiotherapy Quality Assurance Using Statistical Process Control. IFMBE Proceedings, 2019, , 437-442.	0.2	5
74	A hybrid radiation detector for simultaneous spatial and temporal dosimetry. Australasian Physical and Engineering Sciences in Medicine, 2011, 34, 327-332.	1.4	4
75	Ultrasound attenuation computed tomography assessment of PAGAT gel dose. Physics in Medicine and Biology, 2014, 59, N129-N137.	1.6	4
76	Evaluation of MegaVoltage Cone Beam CT image quality with an unmodified Elekta Precise Linac and EPID: a feasibility study. Australasian Physical and Engineering Sciences in Medicine, 2014, 37, 291-302.	1.4	4
77	A virtual environment for medical radiation collaborative learning. Australasian Physical and Engineering Sciences in Medicine, 2015, 38, 369-374.	1.4	4
78	Improving accuracy for stereotactic body radiotherapy treatments of spinal metastases. Journal of Applied Clinical Medical Physics, 2018, 19, 453-462.	0.8	4
79	Linear accelerator bunker shielding for stereotactic radiotherapy. Physics in Medicine and Biology, 2019, 64, 21NT04.	1.6	4
80	A method for obtaining three-dimensional measurements of HDR brachytherapy dose distributions using Fricke gel dosimeters and optical computed tomography. Australasian Physical and Engineering Sciences in Medicine, 2019, 42, 221-226.	1.4	4
81	Dosimetric evaluation of a patient-specific 3D-printed oral positioning stent for head-and-neck radiotherapy. Physical and Engineering Sciences in Medicine, 2021, 44, 887-899.	1.3	4
82	The suitability of smartphone camera sensors for detecting radiation. Scientific Reports, 2021, 11, 12653.	1.6	4
83	A novel addâ€œon collimator for preclinical radiotherapy applications using a standard cell irradiator: design, construction, and validation. Medical Physics, 2020, 47, 2461-2471.	1.6	4
84	A portable organic plastic scintillator dosimetry system for low energy X-rays: A feasibility study using an intraoperative X-ray unit as the radiation source. Journal of Medical Physics, 2007, 32, 73.	0.1	4
85	Why publish?. Australasian Physical and Engineering Sciences in Medicine, 2011, 34, 429-430.	1.4	3
86	The influence of Monte Carlo source parameters on detector design and dose perturbation in small field dosimetry. Journal of Physics: Conference Series, 2014, 489, 012006.	0.3	3
87	A feasibility study of multislice Xâ€œray CT imaging of gel dosimeters using the â€œzero scanâ€œ method. Journal of Applied Clinical Medical Physics, 2014, 15, 367-371.	0.8	3
88	Bulk evaluation and comparison of radiotherapy treatment plans for breast cancer. Australasian Physical and Engineering Sciences in Medicine, 2016, 39, 633-644.	1.4	3
89	Effect of verification imaging on in vivo dosimetry results using Gafchromic EBT3 film. Physica Medica, 2016, 32, 1461-1465.	0.4	3
90	Film dosimetry using a smart device camera: a feasibility study for point dose measurements. Physics in Medicine and Biology, 2017, 62, N506-N515.	1.6	3

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91	Taller staff occupationally exposed to less radiation to the temple in cardiac procedures, but risk higher doses during vascular cases. <i>Scientific Reports</i> , 2020, 10, 16103.	1.6	3
92	Comparison of global and local gamma evaluation results using isodose levels. <i>Physical and Engineering Sciences in Medicine</i> , 2021, 44, 201-206.	1.3	3
93	Measurement of a PAGAT gel dosimeter by ultrasound computed tomography. <i>Journal of Physics: Conference Series</i> , 2013, 444, 012083.	0.3	2
94	Reconstructing 3D x-ray CT images of polymer gel dosimeters using the zero-scan method. <i>Journal of Physics: Conference Series</i> , 2013, 444, 012091.	0.3	2
95	Using narrow beam profiles to quantify focal spot size, for accurate Monte Carlo simulations of SRS/SRT systems. <i>Journal of Physics: Conference Series</i> , 2014, 489, 012014.	0.3	2
96	PAGAT gel dosimeters for dose distribution measurements in the vicinity of high-density implants: A preliminary study. <i>Journal of Physics: Conference Series</i> , 2015, 573, 012061.	0.3	2
97	Characterisation of the half-field beam penumbra for a variety of blocking set-ups. <i>Journal of Physics: Conference Series</i> , 2015, 573, 012073.	0.3	2
98	Use of electronic portal imaging devices for electron treatment verification. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016, 39, 199-209.	1.4	2
99	Technical Note: Dose distributions in the vicinity of high-density implants using 3D gel dosimeters. <i>Medical Physics</i> , 2017, 44, 1545-1551.	1.6	2
100	Effect of arc length on skin dose from hypofractionated volumetric modulated arc radiotherapy treatments of the lung and spine. <i>Medical Dosimetry</i> , 2019, 44, 309-314.	0.4	2
101	Exploring the gamma surface: A new method for visualising modulated radiotherapy quality assurance results. <i>Physica Medica</i> , 2020, 78, 166-172.	0.4	2
102	Citations equals research quality? If you agree then don't cite this stupid, totally terrible article. <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 1149-1149.	1.3	2
103	Measuring foetal dose from tomotherapy treatments. <i>Medical Dosimetry</i> , 2021, 46, 342-346.	0.4	2
104	Assessment of the effects of CT dose in averaged x-ray CT images of a dose-sensitive polymer gel. <i>Journal of Physics: Conference Series</i> , 2015, 573, 012075.	0.3	1
105	Suitability of Diodes for Point Dose Measurements in IMRT/VMAT Beams. <i>IFMBE Proceedings</i> , 2015, , 657-660.	0.2	1
106	Journal name change. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2019, 42, 661-661.	1.4	1
107	Big shoes to fill. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2019, 42, 1-2.	1.4	1
108	Characteristics of inverse gamma histograms. <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 659-664.	1.3	1

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109	Modelling of a novel technique to improve the visualisation of implanted fiducial markers for intra-fraction MV imaging of prostate VMAT targets. Biomedical Physics and Engineering Express, 2021, 7, 055009.	0.6	1
110	A comparative study of the effect of calibration conditions on the water equivalence of a range of gel dosimeters. , 2007, , .		0
111	Photon beam dose distributions for patients with implanted temporary tissue expanders. Journal of Physics: Conference Series, 2015, 573, 012062.	0.3	0
112	Reduction of artefacts caused by missing ray-sum data in optical-CT imaging of implants in gel dosimeters. Journal of Physics: Conference Series, 2017, 847, 012070.	0.3	0
113	Can a commercial gel dosimetry system be used to verify stereotactic spinal radiotherapy treatment dose distributions?. Journal of Physics: Conference Series, 2017, 847, 012071.	0.3	0
114	APESM statistics and summary of 2017â€“2018. Australasian Physical and Engineering Sciences in Medicine, 2019, 42, 903-904.	1.4	0
115	Departmental action limits for TQA energy variations defined by means of statistical process control methods. Physical and Engineering Sciences in Medicine, 2020, 43, 29-34.	1.3	0
116	AI Notes: A new article type in Physical and Engineering Sciences in Medicine. Physical and Engineering Sciences in Medicine, 2021, 44, 601-601.	1.3	0
117	Radiation dose to nurses, cardiologists, and patients during coronary angiography: a comparison of femoral and radial access. European Journal of Cardiovascular Nursing, 2021, , .	0.4	0
118	Use of in vivo transit portal images to detect gross inter-fraction patient geometry changes on an O-ring type linear accelerator for pelvis and head/neck patients. Biomedical Physics and Engineering Express, 2021, 7, 065036.	0.6	0
119	Radiation Detection and Simulation Methods. Series in Medical Physics and Biomedical Engineering, 2008, , 71-82.	0.1	0
120	Fundamentals of Radiation Physics. Series in Medical Physics and Biomedical Engineering, 2008, , 19-36.	0.1	0
121	Impact of dose reducing software on patient and staff temple dose during fluoroscopically guided pacemaker insertion, closure devices implantation and coronary angiography procedures. Physical and Engineering Sciences in Medicine, 2022, , 1.	1.3	0