

Scott B Crowe

List of Publications by Year in descending order

Source: [//exaly.com/author-pdf/970777/publications.pdf](https://exaly.com/author-pdf/970777/publications.pdf)

Version: 2024-02-01

109
papers

1,347
citations

364017

20
h-index

435775

31
g-index

117
all docs

117
docs citations

117
times ranked

1012
citing authors

#	ARTICLE	IF	CITATIONS
1	Radiological properties of 3D printed materials in kilovoltage and megavoltage photon beams. <i>Physica Medica</i> , 2017, 38, 111-118.	0.7	86
2	A practical and theoretical definition of very small field size for radiotherapy output factor measurements. <i>Medical Physics</i> , 2014, 41, 041707.	3.0	71
3	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
4	Dosimetry of cone-defined stereotactic radiosurgery fields with a commercial synthetic diamond detector. <i>Medical Physics</i> , 2014, 41, 111702.	3.0	55
5	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.	3.0	53
6	Monte Carlo-based diode design for correction-less small field dosimetry. <i>Physics in Medicine and Biology</i> , 2013, 58, 4501-4512.	3.0	50
7	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.	3.0	38
8	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
9	The effect of very small air gaps on small field dosimetry. <i>Physics in Medicine and Biology</i> , 2012, 57, 6947-6960.	3.0	36
10	Quasi-simultaneous 3D printing of muscle-, lung- and bone-equivalent media: a proof-of-concept study. <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 701-710.	2.4	33
11	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.	3.0	32
12	A virtual radiation therapy workflow training simulation. <i>Radiography</i> , 2016, 22, e59-e63.	2.2	32
13	Use of 3D Printed Materials as Tissue-Equivalent Phantoms. <i>IFMBE Proceedings</i> , 2015, , 728-731.	0.0	30
14	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.	1.6	24
15	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.	3.0	24
16	Utilising the Virtual Environment for Radiotherapy Training System to Support Undergraduate Teaching of IMRT, VMAT, DCAT Treatment Planning, and QA Concepts. <i>Journal of Medical Imaging and Radiation Sciences</i> , 2018, 49, 31-38.	0.3	24
17	Technical Note: Modeling a complex micro-multileaf collimator using the standard BEAMnrc distribution. <i>Medical Physics</i> , 2010, 37, 1761-1767.	3.0	23
18	Predicting the likelihood of QA failure using treatment plan accuracy metrics. <i>Journal of Physics: Conference Series</i> , 2014, 489, 012051.	0.4	23

#	ARTICLE	IF	CITATIONS
19	Photon optimizer (PO) vs progressive resolution optimizer (PRO): a conformality- and complexity-based comparison for intensity-modulated arc therapy plans. <i>Medical Dosimetry</i> , 2018, 43, 267-275.	0.9	23
20	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.	1.9	22
21	Measuring dose from radiotherapy treatments in the vicinity of a cardiac pacemaker. <i>Physica Medica</i> , 2016, 32, 1529-1536.	0.7	18
22	Monitoring Daily QA 3 constancy for routine quality assurance on linear accelerators. <i>Physica Medica</i> , 2016, 32, 1479-1487.	0.7	18
23	Monte Carlo verification of gel dosimetry measurements for stereotactic radiotherapy. <i>Physics in Medicine and Biology</i> , 2012, 57, 3359-3369.	3.0	17
24	THE DEVELOPMENT OF A MONTE CARLO SYSTEM TO VERIFY RADIOTHERAPY TREATMENT DOSE CALCULATIONS. <i>Radiotherapy and Oncology</i> , 2009, 92, S71.	0.6	16
25	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.	3.0	16
26	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
27	Effects of inaccurate small field dose measurements on calculated treatment doses. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016, 39, 747-753.	1.4	16
28	Xylenol orange functionalised polymers to overcome diffusion in Fricke gel radiation dosimeters. <i>Reactive and Functional Polymers</i> , 2018, 132, 81-88.	4.2	16
29	Investigating output and energy variations and their relationship to delivery QA results using Statistical Process Control for helical tomotherapy. <i>Physica Medica</i> , 2017, 38, 105-110.	0.7	15
30	Accuracy and efficiency of published film dosimetry techniques using a flat-bed scanner and EBT3 film. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2018, 41, 117-128.	1.4	13
31	Analysis of dose comparison techniques for patient-specific quality assurance in radiation therapy. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 189-198.	1.9	13
32	The appearance and effects of metallic implants in CT images. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2013, 36, 209-217.	1.4	12
33	A very low diffusion Fricke gel dosimeter with functionalised xylenol orange-PVA (XOPVA). <i>Physics in Medicine and Biology</i> , 2019, 64, 205017.	3.0	12
34	Distributive quality assurance and delivery of stereotactic ablative radiotherapy treatments amongst beam matched linear accelerators: A feasibility study. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 99-105.	1.9	12
35	Investigation of stereotactic radiotherapy dose using dosimetry film and Monte Carlo simulations. <i>Radiation Measurements</i> , 2011, 46, 1985-1988.	1.4	11
36	Women in medical physics: a preliminary analysis of workforce and research participation in Australia and New Zealand. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016, 39, 525-532.	1.4	11

#	ARTICLE	IF	CITATIONS
37	Wearable glass beads for in vivo dosimetry of total skin electron irradiation treatments. Radiation Physics and Chemistry, 2017, 140, 314-318.	2.8	11
38	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.	1.9	11
39	Investigating the use of aperture shape controller in VMAT treatment deliveries. Medical Dosimetry, 2020, 45, 284-292.	0.9	11
40	Assessing the fit of 3D printed bolus from CT, optical scanner and photogrammetry methods. Physical and Engineering Sciences in Medicine, 2020, 43, 601-607.	2.4	11
41	Effects of collimator backscatter in an Elekta linac by Monte Carlo simulation. Australasian Physical and Engineering Sciences in Medicine, 2009, 32, 129-135.	1.4	10
42	Establishing the impact of temporary tissue expanders on electron and photon beam dose distributions. Physica Medica, 2015, 31, 281-285.	0.7	10
43	Technical Note: Calibrating radiochromic film in beams of uncertain quality. Medical Physics, 2016, 43, 5647-5652.	3.0	10
44	Dosimetric quality, accuracy, and deliverability of modulated radiotherapy treatments for spinal metastases. Medical Dosimetry, 2016, 41, 258-266.	0.9	10
45	Response variation of optically stimulated luminescence dosimeters. Radiation Measurements, 2014, 61, 21-24.	1.4	9
46	Investigating the use of image thresholding in brachytherapy catheter reconstruction. Australasian Physical and Engineering Sciences in Medicine, 2016, 39, 913-919.	1.4	9
47	Clinical implementation of a Monte Carlo based independent TPS dose checking system. Physical and Engineering Sciences in Medicine, 2020, 43, 1113-1123.	2.4	9
48	Dosimetric effects of a high-density spinal implant. Journal of Physics: Conference Series, 2013, 444, 012108.	0.4	8
49	A reduction of diffusion in PVA Fricke hydrogels. Journal of Physics: Conference Series, 2015, 573, 012046.	0.4	8
50	A simple method to account for skin dose enhancement during treatment planning of VMAT treatments of patients in contact with immobilization equipment. Journal of Applied Clinical Medical Physics, 2018, 19, 239-245.	1.9	8
51	Tomotherapy treatment site specific planning using statistical process control. Physica Medica, 2018, 53, 32-39.	0.7	8
52	Conservatism in linear accelerator bunker shielding. Australasian Physical and Engineering Sciences in Medicine, 2019, 42, 781-787.	1.4	8
53	Monte Carlo evaluation of collapsed-cone convolution calculations in head and neck radiotherapy treatment plans. IFMBE Proceedings, 2013, , 1803-1806.	0.0	8
54	Correcting radiation survey data to account for increased leakage during intensity modulated radiotherapy treatments. Medical Physics, 2013, 40, 111708.	3.0	7

#	ARTICLE	IF	CITATIONS
55	Technical note: A modified gamma evaluation method for dose distribution comparisons. Journal of Applied Clinical Medical Physics, 2019, 20, 193-200.	1.9	7
56	Determining tolerance levels for quality assurance of 3D printed bolus for modulated arc radiotherapy of the nose. Physical and Engineering Sciences in Medicine, 2021, 44, 1187-1199.	2.4	7
57	Evaluation of optical 3D scanning system for radiotherapy use. Journal of Medical Radiation Sciences, 2022, 69, 218-226.	1.6	7
58	In vivo monitoring of total skin electron dose using optically stimulated luminescence dosimeters. Reports of Practical Oncology and Radiotherapy, 2020, 25, 35-40.	0.7	6
59	Monte Carlo calculated output correction factors for Gafchromic EBT3 film for relative dosimetry in small stereotactic radiosurgery fields. Physical and Engineering Sciences in Medicine, 2020, 43, 609-616.	2.4	6
60	Internal calibration of gel dosimeters: A feasibility study. Journal of Physics: Conference Series, 2009, 164, 012014.	0.4	5
61	Application of retrospective data analysis to clinical protocol design: can the potential benefits of breath-hold techniques for breast radiotherapy be assessed without testing on patients?. Australasian Physical and Engineering Sciences in Medicine, 2019, 42, 227-233.	1.4	5
62	A review of stereotactic body radiotherapy for the spine. Physical and Engineering Sciences in Medicine, 2020, 43, 799-824.	2.4	5
63	Predicting the required thickness of custom shielding materials in kilovoltage radiotherapy beams. Physica Medica, 2021, 81, 94-101.	0.7	5
64	Technical Note: Small field dose correction factors for radiochromic film in lung phantoms. Medical Physics, 2021, 48, 2667-2672.	3.0	5
65	Radiotherapy Quality Assurance Using Statistical Process Control. IFMBE Proceedings, 2019, , 437-442.	0.0	5
66	Report of the ACPSEM radiation oncology medical physics workforce modelling project task group. Physical and Engineering Sciences in Medicine, 2021, 44, 1013-1025.	2.4	5
67	Medical physics publishing in a changing research environment: the Australasian Physical & Engineering Sciences in Medicine 40th anniversary editorial. Australasian Physical and Engineering Sciences in Medicine, 2017, 40, 771-776.	1.4	4
68	Improving accuracy for stereotactic body radiotherapy treatments of spinal metastases. Journal of Applied Clinical Medical Physics, 2018, 19, 453-462.	1.9	4
69	Linear accelerator bunker shielding for stereotactic radiotherapy. Physics in Medicine and Biology, 2019, 64, 21NT04.	3.0	4
70	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
71	Monte Carlo calculations of radiotherapy dose in inhomogeneous anatomy. Physica Medica, 2020, 78, 156-165.	0.7	4
72	Effects of gas-filled temporary breast tissue expanders on radiation dose from modulated rotational photon beams. Medical Dosimetry, 2021, 46, 13-20.	0.9	4

#	ARTICLE	IF	CITATIONS
73	Dosimetric evaluation of a patient-specific 3D-printed oral positioning stent for head-and-neck radiotherapy. <i>Physical and Engineering Sciences in Medicine</i> , 2021, 44, 887-899.	2.4	4
74	Impact of radiopacified bone cement on radiotherapy dose calculation. <i>Physics and Imaging in Radiation Oncology</i> , 2020, 14, 12-16.	2.9	4
75	The influence of Monte Carlo source parameters on detector design and dose perturbation in small field dosimetry. <i>Journal of Physics: Conference Series</i> , 2014, 489, 012006.	0.4	3
76	Bulk evaluation and comparison of radiotherapy treatment plans for breast cancer. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016, 39, 633-644.	1.4	3
77	Commissioning a hobby cutting device for radiochromic film preparation. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2017, 40, 449-453.	1.4	3
78	Retrospective analysis of breast radiotherapy treatment plans: Curating the "non-curated". <i>Journal of Medical Imaging and Radiation Oncology</i> , 2019, 63, 517-529.	1.9	3
79	Recommendations for simulating and measuring with biofabricated lung equivalent materials based on atomic composition analysis. <i>Physical and Engineering Sciences in Medicine</i> , 2021, 44, 331-335.	2.4	3
80	Comparison of global and local gamma evaluation results using isodose levels. <i>Physical and Engineering Sciences in Medicine</i> , 2021, 44, 201-206.	2.4	3
81	Optically Stimulated Luminescence Dosimeters as an Alternative to Radiographic Film for Performing "Head-Wrap" Linac Leakage Measurements. <i>IFMBE Proceedings</i> , 2019, , 553-555.	0.0	3
82	Long-Term Reliability of Optically Stimulated Luminescence Dosimeters. <i>IFMBE Proceedings</i> , 2019, , 561-564.	0.0	3
83	Development of a customisable 3D-printed intra-oral stent for head-and-neck radiotherapy. <i>Technical Innovations and Patient Support in Radiation Oncology</i> , 2022, 23, 1-7.	2.1	3
84	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.	0.4	2
85	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.	0.4	2
86	Characterisation of the half-field beam penumbra for a variety of blocking set-ups. <i>Journal of Physics: Conference Series</i> , 2015, 573, 012073.	0.4	2
87	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
88	Technical Note: Dose distributions in the vicinity of high-density implants using 3D gel dosimeters. <i>Medical Physics</i> , 2017, 44, 1545-1551.	3.0	2
89	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.	0.9	2
90	Exploring the gamma surface: A new method for visualising modulated radiotherapy quality assurance results. <i>Physica Medica</i> , 2020, 78, 166-172.	0.7	2

#	ARTICLE	IF	CITATIONS
91	Measuring foetal dose from tomotherapy treatments. <i>Medical Dosimetry</i> , 2021, 46, 342-346.	0.9	2
92	Suitability of Diodes for Point Dose Measurements in IMRT/VMAT Beams. <i>IFMBE Proceedings</i> , 2015, , 657-660.	0.0	1
93	Feasibility of 3D printed air slab diode caps for small field dosimetry. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2017, 40, 631-642.	1.4	1
94	Characterisation of radiological properties of a brachytherapy moulding material. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2018, 41, 731-737.	1.4	1
95	Characteristics of inverse gamma histograms. <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 659-664.	2.4	1
96	Optimising a Radiotherapy Optical Surface Monitoring System to Account for the Effects of Patient Skin Contour and Skin Colour. <i>IFMBE Proceedings</i> , 2019, , 451-454.	0.0	1
97	Photon beam dose distributions for patients with implanted temporary tissue expanders. <i>Journal of Physics: Conference Series</i> , 2015, 573, 012062.	0.4	0
98	Reduction of artefacts caused by missing ray-sum data in optical-CT imaging of implants in gel dosimeters. <i>Journal of Physics: Conference Series</i> , 2017, 847, 012070.	0.4	0
99	Can a commercial gel dosimetry system be used to verify stereotactic spinal radiotherapy treatment dose distributions?. <i>Journal of Physics: Conference Series</i> , 2017, 847, 012071.	0.4	0
100	Review of the clinical benefits and implementation of peer review of treatment plans in undergraduate medical dosimetry and radiation therapy training. <i>Journal of Radiotherapy in Practice</i> , 2017, 16, 85-91.	0.5	0
101	Departmental action limits for TQA energy variations defined by means of statistical process control methods. <i>Physical and Engineering Sciences in Medicine</i> , 2020, 43, 29-34.	2.4	0
102	ASSESSMENT OF INTEGRITY AND LEAD-EQUIVALENCE OF SHIELDED GARMENTS USING TWO-DIMENSIONAL X-RAY IMAGES FROM A COMPUTED TOMOGRAPHY SCANNER. <i>Radiation Protection Dosimetry</i> , 2021, 193, 155-164.	0.8	0
103	3D printed brachytherapy jig for Reference Air Kerma Rate calibration. <i>Physical and Engineering Sciences in Medicine</i> , 2021, 44, 1141-1150.	2.4	0
104	Stereotactic Radiosurgery for Multiple Brain Metastases: A Dose-Volume Study. <i>IFMBE Proceedings</i> , 2019, , 443-446.	0.0	0
105	Calibration Seed Sampling for Iodine-125 Prostate Brachytherapy. <i>IFMBE Proceedings</i> , 2019, , 459-462.	0.0	0
106	Radiotherapy Dose Measurements Using a Fluorescing Quinine Solution. <i>IFMBE Proceedings</i> , 2019, , 545-548.	0.0	0
107	RSC: A 3D printed eyeball phantom for Sr-90 dosimetry measurements. <i>Journal of Physics: Conference Series</i> , 2022, 2167, 012018.	0.4	0
108	A publicly available dataset of out-of-field dose profiles of a 6 MV linear accelerator. <i>Physical and Engineering Sciences in Medicine</i> , 2022, , 1.	2.4	0

#	ARTICLE	IF	CITATIONS
109	Webinar and survey on quality management principles within the Australian and New Zealand ACPSEM Workforce. Physical and Engineering Sciences in Medicine, 0, , .	2.4	0