Scott B Crowe

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26 959 17 110 h-index g-index citations papers 1,168 4.47 117 2.4 L-index avg, IF ext. citations ext. papers

| # | Paper | IF | Citations |
|-----|---|-------|-----------|
| 110 | A practical and theoretical definition of very small field size for radiotherapy output factor measurements. <i>Medical Physics</i> , 2014 , 41, 041707 | 4.4 | 60 |
| 109 | Radiological properties of 3D printed materials in kilovoltage and megavoltage photon beams. <i>Physica Medica</i> , 2017 , 38, 111-118 | 2.7 | 48 |
| 108 | Dosimetry of cone-defined stereotactic radiosurgery fields with a commercial synthetic diamond detector. <i>Medical Physics</i> , 2014 , 41, 111702 | 4.4 | 48 |
| 107 | Monte Carlo-based diode design for correction-less small field dosimetry. <i>Physics in Medicine and Biology</i> , 2013 , 58, 4501-12 | 3.8 | 43 |
| 106 | Treatment plan complexity metrics for predicting IMRT pre-treatment quality assurance results. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2014 , 37, 475-82 | 1.9 | 42 |
| 105 | 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, 2587-601 | 3.8 | 39 |
| 104 | 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, 1501-6 | 4.4 | 34 |
| 103 | The effect of very small air gaps on small field dosimetry. <i>Physics in Medicine and Biology</i> , 2012 , 57, 694 | 7-568 | 33 |
| 102 | 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, 303-9 | 1.9 | 32 |
| 101 | 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 | 4.4 | 26 |
| 100 | Modeling a complex micro-multileaf collimator using the standard BEAMnrc distribution. <i>Medical Physics</i> , 2010 , 37, 1761-7 | 4.4 | 23 |
| 99 | A virtual radiation therapy workflow training simulation. <i>Radiography</i> , 2016 , 22, e59-e63 | 2 | 22 |
| 98 | Use of 3D Printed Materials as Tissue-Equivalent Phantoms. IFMBE Proceedings, 2015, 728-731 | 0.2 | 22 |
| 97 | Technical Note: Preliminary investigations into the use of a functionalised polymer to reduce diffusion in Fricke gel dosimeters. <i>Medical Physics</i> , 2015 , 42, 6798-803 | 4.4 | 20 |
| 96 | 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 | 1.3 | 18 |
| 95 | Monte Carlo verification of gel dosimetry measurements for stereotactic radiotherapy. <i>Physics in Medicine and Biology</i> , 2012 , 57, 3359-69 | 3.8 | 17 |
| 94 | 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, 131-8 | 1.5 | 17 |

| 93 | Predicting the likelihood of QA failure using treatment plan accuracy metrics. <i>Journal of Physics: Conference Series</i> , 2014 , 489, 012051 | 0.3 | 16 |
|----|--|-------|----|
| 92 | Measuring dose from radiotherapy treatments in the vicinity of a cardiac pacemaker. <i>Physica Medica</i> , 2016 , 32, 1529-1536 | 2.7 | 15 |
| 91 | Effects of inaccurate small field dose measurements on calculated treatment doses. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016 , 39, 747-53 | 1.9 | 14 |
| 90 | Monitoring Daily QA 3 constancy for routine quality assurance on linear accelerators. <i>Physica Medica</i> , 2016 , 32, 1479-1487 | 2.7 | 14 |
| 89 | 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 | 4.4 | 14 |
| 88 | THE DEVELOPMENT OF A MONTE CARLO SYSTEM TO VERIFY RADIOTHERAPY TREATMENT DOSE CALCULATIONS. <i>Radiotherapy and Oncology</i> , 2009 , 92, S71 | 5.3 | 14 |
| 87 | Xylenol orange functionalised polymers to overcome diffusion in Fricke gel radiation dosimeters. <i>Reactive and Functional Polymers</i> , 2018 , 132, 81-88 | 4.6 | 13 |
| 86 | 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 | 1.9 | 12 |
| 85 | 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 | 1.4 | 12 |
| 84 | 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 | 7 | 12 |
| 83 | 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, 357-67 | 1.9 | 11 |
| 82 | Dosimetric quality, accuracy, and deliverability of modulated radiotherapy treatments for spinal metastases. <i>Medical Dosimetry</i> , 2016 , 41, 258-66 | 1.3 | 10 |
| 81 | Experimental Evaluation of MCDTK, the Monte Carlo DICOM Tool-Kit. IFMBE Proceedings, 2013, 1807-18 | 31602 | 10 |
| 80 | Technical Note: Calibrating radiochromic film in beams of uncertain quality. <i>Medical Physics</i> , 2016 , 43, 5647 | 4.4 | 10 |
| 79 | The appearance and effects of metallic implants in CT images. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2013 , 36, 209-17 | 1.9 | 9 |
| 78 | Investigation of stereotactic radiotherapy dose using dosimetry film and Monte Carlo simulations. <i>Radiation Measurements</i> , 2011 , 46, 1985-1988 | 1.5 | 9 |
| 77 | Effects of collimator backscatter in an Elekta linac by Monte Carlo simulation. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2009 , 32, 129-35 | 1.9 | 9 |
| 76 | Wearable glass beads for in vivo dosimetry of total skin electron irradiation treatments. <i>Radiation Physics and Chemistry</i> , 2017 , 140, 314-318 | 2.5 | 8 |

| 75 | Statistical process control and verifying positional accuracy of a cobra motion couch using step-wedge quality assurance tool. <i>Journal of Applied Clinical Medical Physics</i> , 2017 , 18, 70-79 | 2.3 | 8 |
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| 74 | 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 | 2.3 | 8 |
| 73 | 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, 71-8 | 3 0 .3 | 8 |
| 72 | Establishing the impact of temporary tissue expanders on electron and photon beam dose distributions. <i>Physica Medica</i> , 2015 , 31, 281-5 | 2.7 | 8 |
| 71 | Response variation of optically stimulated luminescence dosimeters. <i>Radiation Measurements</i> , 2014 , 61, 21-24 | 1.5 | 8 |
| 70 | 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 | 2.7 | 8 |
| 69 | 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, 525-32 | 1.9 | 7 |
| 68 | A simple method to account for skin dose enhancement during treatment planning of VMAT treatments of patients in contact with immobilization equipment. <i>Journal of Applied Clinical Medical Physics</i> , 2018 , 19, 239-245 | 2.3 | 7 |
| 67 | A reduction of diffusion in PVA Fricke hydrogels. <i>Journal of Physics: Conference Series</i> , 2015 , 573, 01204 | 60.3 | 7 |
| 66 | Dosimetric effects of a high-density spinal implant. <i>Journal of Physics: Conference Series</i> , 2013 , 444, 012 | 1.6.8 | 7 |
| 65 | Investigating the use of image thresholding in brachytherapy catheter reconstruction. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016 , 39, 913-919 | 1.9 | 6 |
| 64 | Analysis of dose comparison techniques for patient-specific quality assurance in radiation therapy. Journal of Applied Clinical Medical Physics, 2019 , 20, 189-198 | 2.3 | 6 |
| 63 | A very low diffusion Fricke gel dosimeter with functionalised xylenol orange-PVA (XOPVA). <i>Physics in Medicine and Biology</i> , 2019 , 64, 205017 | 3.8 | 5 |
| 62 | Assessing the fit of 3D printed bolus from CT, optical scanner and photogrammetry methods. <i>Physical and Engineering Sciences in Medicine</i> , 2020 , 43, 601-607 | 7 | 5 |
| 61 | Conservatism in linear accelerator bunker shielding. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2019 , 42, 781-787 | 1.9 | 5 |
| 60 | Correcting radiation survey data to account for increased leakage during intensity modulated radiotherapy treatments. <i>Medical Physics</i> , 2013 , 40, 111708 | 4.4 | 5 |
| 59 | Internal calibration of gel dosimeters: A feasibility study. <i>Journal of Physics: Conference Series</i> , 2009 , 164, 012014 | 0.3 | 5 |
| 58 | Monte Carlo evaluation of collapsed-cone convolution calculations in head and neck radiotherapy treatment plans. <i>IFMBE Proceedings</i> , 2013 , 1803-1806 | 0.2 | 5 |

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| 57 | 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 | 1.9 | 4 | |
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| 56 | A review of stereotactic body radiotherapy for the spine. <i>Physical and Engineering Sciences in Medicine</i> , 2020 , 43, 799-824 | 7 | 4 | |
| 55 | Tomotherapy treatment site specific planning using statistical process control. <i>Physica Medica</i> , 2018 , 53, 32-39 | 2.7 | 4 | |
| 54 | Technical note: A modified gamma evaluation method for dose distribution comparisons. <i>Journal of Applied Clinical Medical Physics</i> , 2019 , 20, 193-200 | 2.3 | 4 | |
| 53 | In vivo monitoring of total skin electron dose using optically stimulated luminescence dosimeters. <i>Reports of Practical Oncology and Radiotherapy</i> , 2020 , 25, 35-40 | 1.5 | 4 | |
| 52 | Investigating the use of aperture shape controller in VMAT treatment deliveries. <i>Medical Dosimetry</i> , 2020 , 45, 284-292 | 1.3 | 4 | |
| 51 | Clinical implementation of a Monte Carlo based independent TPS dose checking system. <i>Physical and Engineering Sciences in Medicine</i> , 2020 , 43, 1113-1123 | 7 | 4 | |
| 50 | Monte Carlo calculated output correction factors for Gafchromic EBT3 film for relative dosimetry in small stereotactic radiosurgery fields. <i>Physical and Engineering Sciences in Medicine</i> , 2020 , 43, 609-616 | 7 | 4 | |
| 49 | Improving accuracy for stereotactic body radiotherapy treatments of spinal metastases. <i>Journal of Applied Clinical Medical Physics</i> , 2018 , 19, 453-462 | 2.3 | 4 | |
| 48 | Linac Leakage Dose Received by Patients Treated Using Non-coplanar Radiotherapy Beams. <i>IFMBE Proceedings</i> , 2019 , 549-551 | 0.2 | 3 | |
| 47 | Optically Stimulated Luminescence Dosimeters as an Alternative to Radiographic Film for Performing Head-Wrap Linac Leakage Measurements. <i>IFMBE Proceedings</i> , 2019 , 553-555 | 0.2 | 3 | |
| 46 | Effects of gas-filled temporary breast tissue expanders on radiation dose from modulated rotational photon beams. <i>Medical Dosimetry</i> , 2021 , 46, 13-20 | 1.3 | 3 | |
| 45 | Technical Note: Dose distributions in the vicinity of high-density implants using 3D gel dosimeters. <i>Medical Physics</i> , 2017 , 44, 1545-1551 | 4.4 | 2 | |
| 44 | Commissioning a hobby cutting device for radiochromic film preparation. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2017 , 40, 449-453 | 1.9 | 2 | |
| 43 | Retrospective analysis of breast radiotherapy treatment plans: Curating the 'non-curated'. <i>Journal of Medical Imaging and Radiation Oncology</i> , 2019 , 63, 517-529 | 1.7 | 2 | |
| 42 | Bulk evaluation and comparison of radiotherapy treatment plans for breast cancer. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016 , 39, 633-44 | 1.9 | 2 | |
| 41 | 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 | |
| 40 | 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 | 0.3 | 2 | |

| 39 | 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 | |
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| 38 | Long-Term Reliability of Optically Stimulated Luminescence Dosimeters. IFMBE Proceedings, 2019, 561- | -5 6.4 | 2 | |
| 37 | Radiotherapy Quality Assurance Using Statistical Process Control. <i>IFMBE Proceedings</i> , 2019 , 437-442 | 0.2 | 2 | |
| 36 | Predicting the required thickness of custom shielding materials in kilovoltage radiotherapy beams. <i>Physica Medica</i> , 2021 , 81, 94-101 | 2.7 | 2 | |
| 35 | Anatomical Modelling of the Pregnant Radiotherapy Patient. IFMBE Proceedings, 2015, 557-560 | 0.2 | 1 | |
| 34 | Suitability of Diodes for Point Dose Measurements in IMRT/VMAT Beams. IFMBE Proceedings, 2015, 657 | 7-6 <u>.6</u> 0 | 1 | |
| 33 | Characteristics of inverse gamma histograms. <i>Physical and Engineering Sciences in Medicine</i> , 2020 , 43, 659-664 | 7 | 1 | |
| 32 | 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 | 0.3 | 1 | |
| 31 | 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 | 0.3 | 1 | |
| 30 | 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 | 1.9 | 1 | |
| 29 | 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 | 1 | |
| 28 | Photon beam dose distributions for patients with implanted temporary tissue expanders. <i>Journal of Physics: Conference Series</i> , 2015 , 573, 012062 | 0.3 | 1 | |
| 27 | Retrospective Audit of Patient Specific Quality Assurance Results Obtained Using Helical Diode Arrays. <i>IFMBE Proceedings</i> , 2019 , 447-450 | 0.2 | 1 | |
| 26 | 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 | 0.2 | 1 | |
| 25 | Impact of radiopacified bone cement on radiotherapy dose calculation. <i>Physics and Imaging in Radiation Oncology</i> , 2020 , 14, 12-16 | 3.1 | 1 | |
| 24 | Exploring the gamma surface: A new method for visualising modulated radiotherapy quality assurance results. <i>Physica Medica</i> , 2020 , 78, 166-172 | 2.7 | 1 | |
| 23 | Monte Carlo calculations of radiotherapy dose in "homogeneous" anatomy. <i>Physica Medica</i> , 2020 , 78, 156-165 | 2.7 | 1 | |
| 22 | Technical Note: Small field dose correction factors for radiochromic film in lung phantoms. <i>Medical Physics</i> , 2021 , 48, 2667-2672 | 4.4 | 1 | |

| 21 | Measuring foetal dose from tomotherapy treatments. <i>Medical Dosimetry</i> , 2021 , 46, 342-346 | 1.3 | 1 |
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| 20 | 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 | 7 | 1 |
| 19 | 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 | 1.3 | 1 |
| 18 | A method for obtaining three-dimensional measurements of HDR brachytherapy dose distributions using Fricke gel dosimeters and optical computed tomography. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2019 , 42, 221-226 | 1.9 | 1 |
| 17 | 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 | 7 | 1 |
| 16 | Use of electronic portal imaging devices for electron treatment verification. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016 , 39, 199-209 | 1.9 | O |
| 15 | Linear accelerator bunker shielding for stereotactic radiotherapy. <i>Physics in Medicine and Biology</i> , 2019 , 64, 21NT04 | 3.8 | О |
| 14 | Report of the ACPSEM radiation oncology medical physics workforce modelling project task group. <i>Physical and Engineering Sciences in Medicine</i> , 2021 , 44, 1013 | 7 | O |
| 13 | Comparison of global and local gamma evaluation results using isodose levels. <i>Physical and Engineering Sciences in Medicine</i> , 2021 , 44, 201-206 | 7 | O |
| 12 | Determining tolerance levels for quality assurance of 3D printed bolus for modulated arc radiotherapy of the nose. <i>Physical and Engineering Sciences in Medicine</i> , 2021 , 1 | 7 | O |
| 11 | Interplay of MLC, gantry and respiratory motion during DCAT delivery. IFMBE Proceedings, 2015, 428-43 | 315.2 | |
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| 10 | 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 | 0.4 | |
| 10 | undergraduate medical dosimetry and radiation therapy training. Journal of Radiotherapy in | 0.4 | |
| | undergraduate medical dosimetry and radiation therapy training. <i>Journal of Radiotherapy in Practice</i> , 2017 , 16, 85-91 RSC: A 3D printed eyeball phantom for Sr-90 dosimetry measurements. <i>Journal of Physics</i> : | | |
| 9 | undergraduate medical dosimetry and radiation therapy training. <i>Journal of Radiotherapy in Practice</i> , 2017 , 16, 85-91 RSC: A 3D printed eyeball phantom for Sr-90 dosimetry measurements. <i>Journal of Physics: Conference Series</i> , 2022 , 2167, 012018 Stereotactic Radiosurgery for Multiple Brain Metastases: A Dose-Volume Study. <i>IFMBE Proceedings</i> , | 0.3 | |
| 9 | undergraduate medical dosimetry and radiation therapy training. <i>Journal of Radiotherapy in Practice</i> , 2017 , 16, 85-91 RSC: A 3D printed eyeball phantom for Sr-90 dosimetry measurements. <i>Journal of Physics: Conference Series</i> , 2022 , 2167, 012018 Stereotactic Radiosurgery for Multiple Brain Metastases: A Dose-Volume Study. <i>IFMBE Proceedings</i> , 2019 , 443-446 | 0.3 | |
| 9 8 7 | undergraduate medical dosimetry and radiation therapy training. <i>Journal of Radiotherapy in Practice</i> , 2017 , 16, 85-91 RSC: A 3D printed eyeball phantom for Sr-90 dosimetry measurements. <i>Journal of Physics: Conference Series</i> , 2022 , 2167, 012018 Stereotactic Radiosurgery for Multiple Brain Metastases: A Dose-Volume Study. <i>IFMBE Proceedings</i> , 2019 , 443-446 Calibration Seed Sampling for Iodine-125 Prostate Brachytherapy. <i>IFMBE Proceedings</i> , 2019 , 459-462 | 0.3 | |

| 3 | Physical and Engineering Sciences in Medicine, 2018 , 41, 731-737 | 1.9 |
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| 2 | 3D printed brachytherapy jig for Reference Air Kerma Rate calibration. <i>Physical and Engineering Sciences in Medicine</i> , 2021 , 1 | 7 |
| 1 | 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 | 7 |