

Kristy K Brock

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

89 papers	1,953 citations	22 h-index	42 g-index
99 ext. papers	2,491 ext. citations	3.5 avg, IF	5.18 L-index

#	Paper	IF	Citations
89	Contemporary evidence on colorectal liver metastases ablation: toward a paradigm shift in locoregional treatment.. <i>International Journal of Hyperthermia</i> , 2022 , 39, 649-663	3.7	1
88	Automatic contouring QA method using a deep learning-based autocontouring system.. <i>Journal of Applied Clinical Medical Physics</i> , 2022 , e13647	2.3	1
87	Simple Python Module for Conversions Between DICOM Images and Radiation Therapy Structures, Masks, and Prediction Arrays. <i>Practical Radiation Oncology</i> , 2021 , 11, 226-229	2.8	2
86	The Effect of Slice Thickness on Contours of Brain Metastases for Stereotactic Radiosurgery. <i>Advances in Radiation Oncology</i> , 2021 , 6, 100708	3.3	3
85	Geometric and dosimetric accuracy of deformable image registration between average-intensity images for 4DCT-based adaptive radiotherapy for non-small cell lung cancer. <i>Journal of Applied Clinical Medical Physics</i> , 2021 , 22, 156-167	2.3	1
84	Automatic Segmentation Using Deep Learning to Enable Online Dose Optimization During Adaptive Radiation Therapy of Cervical Cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , 2021 , 109, 1096-1110	4	15
83	Responses to the 2018 and 2019 "One Big Discovery" Question: ASTRO Membership's Opinions on the Most Important Research Question Facing Radiation Oncology Where Are We Headed?. <i>International Journal of Radiation Oncology Biology Physics</i> , 2021 , 109, 38-40	4	1
82	Automated Contouring of Contrast and Noncontrast Computed Tomography Liver Images With Fully Convolutional Networks. <i>Advances in Radiation Oncology</i> , 2021 , 6, 100464	3.3	6
81	Mapping lung ventilation through stress maps derived from biomechanical models of the lung. <i>Medical Physics</i> , 2021 , 48, 715-723	4.4	2
80	Detection of vessel bifurcations in CT scans for automatic objective assessment of deformable image registration accuracy. <i>Medical Physics</i> , 2021 , 48, 5935-5946	4.4	0
79	A novel use of biomechanical model-based deformable image registration (DIR) for assessing colorectal liver metastases ablation outcomes. <i>Medical Physics</i> , 2021 , 48, 6226-6236	4.4	2
78	Correlation of in-vivo imaging with histopathology: A review. <i>European Journal of Radiology</i> , 2021 , 144, 109964	4.7	
77	Technical Note: Histological validation of anatomical imaging for breast modeling using a novel cryo-microtome. <i>Medical Physics</i> , 2021 , 48, 7323-7332	4.4	
76	MRI evaluation of normal tissue deformation and breathing motion under an abdominal compression device. <i>Journal of Applied Clinical Medical Physics</i> , 2021 , 22, 90-97	2.3	1
75	Technical Note: A step-by-step guide to Temporally Feathered Radiation Therapy planning for head and neck cancer. <i>Journal of Applied Clinical Medical Physics</i> , 2020 , 21, 209-215	2.3	3
74	Multi-energy computed tomography and material quantification: Current barriers and opportunities for advancement. <i>Medical Physics</i> , 2020 , 47, 3752-3771	4.4	4
73	Detection of Glioblastoma Subclinical Recurrence Using Serial Diffusion Tensor Imaging. <i>Cancers</i> , 2020 , 12,	6.6	3

72	Modeling Complex Deformations of the Sigmoid Colon Between External Beam Radiation Therapy and Brachytherapy Images of Cervical Cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , 2020 , 106, 1084-1094	4	2
71	Accuracy of deformable image registration techniques for alignment of longitudinal cholangiocarcinoma CT images. <i>Medical Physics</i> , 2020 , 47, 1670-1679	4.4	5
70	Preliminary evaluation of biomechanical modeling of lung deflation during minimally invasive surgery using pneumothorax computed tomography scans. <i>Physics in Medicine and Biology</i> , 2020 , 65, 225010	3.8	3
69	Deformable Mapping Method to Relate Lesions in Dedicated Breast CT Images to Those in Automated Breast Ultrasound and Digital Breast Tomosynthesis Images. <i>Ultrasound in Medicine and Biology</i> , 2020 , 46, 750-765	3.5	0
68	Vasculature-Driven Biomechanical Deformable Image Registration of Longitudinal Liver Cholangiocarcinoma Computed Tomographic Scans. <i>Advances in Radiation Oncology</i> , 2020 , 5, 269-278	3.3	5
67	Deformable mapping using biomechanical models to relate corresponding lesions in digital breast tomosynthesis and automated breast ultrasound images. <i>Medical Image Analysis</i> , 2020 , 60, 101599	15.4	4
66	Automatic contouring system for cervical cancer using convolutional neural networks. <i>Medical Physics</i> , 2020 , 47, 5648-5658	4.4	6
65	Dosimetric Analysis and Normal-Tissue Complication Probability Modeling of Child-Pugh Score and Albumin-Bilirubin Grade Increase After Hepatic Irradiation. <i>International Journal of Radiation Oncology Biology Physics</i> , 2020 , 107, 986-995	4	11
64	Analysis of the 2017 American Society for Radiation Oncology (ASTRO) Research Portfolio. <i>International Journal of Radiation Oncology Biology Physics</i> , 2019 , 103, 297-304	4	2
63	Predictive Models to Determine Clinically Relevant Deviations in Delivered Dose for Head and Neck Cancer. <i>Practical Radiation Oncology</i> , 2019 , 9, e422-e431	2.8	7
62	Effect of setup and inter-fraction anatomical changes on the accumulated dose in CT-guided breath-hold intensity modulated proton therapy of liver malignancies. <i>Radiotherapy and Oncology</i> , 2019 , 134, 101-109	5.3	8
61	Prospective quantitative quality assurance and deformation estimation of MRI-CT image registration in simulation of head and neck radiotherapy patients. <i>Clinical and Translational Radiation Oncology</i> , 2019 , 18, 120-127	4.6	9
60	Biomechanical modeling of neck flexion for deformable alignment of the salivary glands in head and neck cancer images. <i>Physics in Medicine and Biology</i> , 2019 , 64, 175018	3.8	
59	Lung Density Analysis Using Quantitative Chest CT for Early Prediction of Chronic Lung Allograft Dysfunction. <i>Transplantation</i> , 2019 , 103, 2645-2653	1.8	10
58	The VAMPIRE challenge: A multi-institutional validation study of CT ventilation imaging. <i>Medical Physics</i> , 2019 , 46, 1198-1217	4.4	29
57	Quantitative chest CT for subtyping chronic lung allograft dysfunction and its association with survival. <i>Clinical Transplantation</i> , 2018 , 32, e13233	3.8	7
56	Deformable image registration-based contour propagation yields clinically acceptable plans for MRI-based cervical cancer brachytherapy planning. <i>Brachytherapy</i> , 2018 , 17, 360-367	2.4	11
55	Deformable mapping technique to correlate lesions in digital breast tomosynthesis and automated breast ultrasound images. <i>Medical Physics</i> , 2018 , 45, 4402-4417	4.4	5

54	On the Fuzziness of Machine Learning, Neural Networks, and Artificial Intelligence in Radiation Oncology. <i>International Journal of Radiation Oncology Biology Physics</i> , 2018 , 100, 1-4	4	13
53	Early Changes in Serial CBCT-Measured Parotid Gland Biomarkers Predict Chronic Xerostomia After Head and Neck Radiation Therapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2018 , 102, 1319-1329	4	20
52	Magnetic Resonance-based Response Assessment and Dose Adaptation in Human Papilloma Virus Positive Tumors of the Oropharynx treated with Radiotherapy (MR-ADAPTOR): An R-IDEAL stage 2a-2b/Bayesian phase II trial. <i>Clinical and Translational Radiation Oncology</i> , 2018 , 13, 19-23	4.6	20
51	Responses to the 2017 "1 Million Gray Question": ASTRO Membership's Opinions on the Most Important Research Question Facing Radiation Oncology. <i>International Journal of Radiation Oncology Biology Physics</i> , 2018 , 102, 249-250	4	0
50	A simulation study to assess the potential impact of developing normal tissue complication probability models with accumulated dose. <i>Advances in Radiation Oncology</i> , 2018 , 3, 662-672	3.3	4
49	Prospective study of the feasibility and dosimetric advantages of MRI-guided dose adaptation for human papillomavirus positive oropharyngeal cancer patients compared with standard IMRT. <i>Clinical and Translational Radiation Oncology</i> , 2018 , 11, 11-18	4.6	12
48	Decreased Lung Perfusion After Breast/Chest Wall Irradiation: Quantitative Results From a Prospective Clinical Trial. <i>International Journal of Radiation Oncology Biology Physics</i> , 2017 , 97, 296-302	4	9
47	Validation of biomechanical deformable image registration in the abdomen, thorax, and pelvis in a commercial radiotherapy treatment planning system. <i>Medical Physics</i> , 2017 , 44, 3407-3417	4.4	31
46	Use of image registration and fusion algorithms and techniques in radiotherapy: Report of the AAPM Radiation Therapy Committee Task Group No. 132. <i>Medical Physics</i> , 2017 , 44, e43-e76	4.4	341
45	Pulse sequence considerations for simulation and postimplant dosimetry of prostate brachytherapy. <i>Brachytherapy</i> , 2017 , 16, 743-753	2.4	10
44	Implementing Radiation Dose-Volume Liver Response in Biomechanical Deformable Image Registration. <i>International Journal of Radiation Oncology Biology Physics</i> , 2017 , 99, 1004-1012	4	12
43	The role of biomechanical anatomical modeling via computed tomography for identification of restrictive allograft syndrome. <i>Clinical Transplantation</i> , 2017 , 31, e13027	3.8	4
42	Feasibility of 4D perfusion CT imaging for the assessment of liver treatment response following SBRT and sorafenib. <i>Advances in Radiation Oncology</i> , 2016 , 1, 194-203	3.3	10
41	Enhancing safety and quality through preplanning peer review for patients undergoing stereotactic body radiation therapy. <i>Practical Radiation Oncology</i> , 2016 , 6, e39-46	2.8	21
40	Effect of deformable registration uncertainty on lung SBRT dose accumulation. <i>Medical Physics</i> , 2016 , 43, 233	4.4	37
39	Technical Note: Method to correlate whole-specimen histopathology of radical prostatectomy with diagnostic MR imaging. <i>Medical Physics</i> , 2016 , 43, 1065-72	4.4	10
38	Biomechanical deformable image registration of longitudinal lung CT images using vessel information. <i>Physics in Medicine and Biology</i> , 2016 , 61, 4826-39	3.8	23
37	Methods for Reducing Normal Tissue Complication Probabilities in Oropharyngeal Cancer: Dose Reduction or Planning Target Volume Elimination. <i>International Journal of Radiation Oncology Biology Physics</i> , 2016 , 96, 645-52	4	8

36	Technical Advances in Oncology Outside of Radiation Medicine. <i>International Journal of Radiation Oncology Biology Physics</i> , 2016 , 95, 1323-1326	4	
35	Utility and validation of biomechanical deformable image registration in low-contrast images. <i>Practical Radiation Oncology</i> , 2015 , 5, e401-8	2.8	11
34	A hybrid biomechanical intensity based deformable image registration of lung 4DCT. <i>Physics in Medicine and Biology</i> , 2015 , 60, 3359-73	3.8	24
33	Radiation dose response simulation for biomechanical-based deformable image registration of head and neck cancer treatment. <i>Physics in Medicine and Biology</i> , 2015 , 60, 8481-9	3.8	10
32	MR-guided prostate biopsy for planning of focal salvage after radiation therapy. <i>Radiology</i> , 2015 , 274, 181-91	20.5	34
31	Accumulated Delivered Dose Response of Stereotactic Body Radiation Therapy for Liver Metastases. <i>International Journal of Radiation Oncology Biology Physics</i> , 2015 , 93, 639-48	4	24
30	Dose escalated liver stereotactic body radiation therapy at the mean respiratory position. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014 , 89, 1121-1128	4	21
29	Dosimetrically triggered adaptive intensity modulated radiation therapy for cervical cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014 , 90, 147-54	4	26
28	Simplified strategies to determine the mean respiratory position for liver radiation therapy planning. <i>Practical Radiation Oncology</i> , 2014 , 4, 160-166	2.8	10
27	Oncology scan--bringing rapid learning and adaptive techniques into clinical physics. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014 , 90, 243-5	4	3
26	Assessment of nonrespiratory stomach motion in healthy volunteers in fasting and postprandial states. <i>Practical Radiation Oncology</i> , 2014 , 4, 288-293	2.8	5
25	Hybrid adaptive radiotherapy with on-line MRI in cervix cancer IMRT. <i>Radiotherapy and Oncology</i> , 2014 , 110, 323-8	5.3	36
24	Point: Principles of magnetic resonance imaging integration in a computed tomography-based radiotherapy workflow. <i>Seminars in Radiation Oncology</i> , 2014 , 24, 169-74	5.5	19
23	Overview and a Word of Thanks. <i>Medical Physics</i> , 2013 , 40, 4-5	4.4	
22	Accumulated dose in liver stereotactic body radiotherapy: positioning, breathing, and deformation effects. <i>International Journal of Radiation Oncology Biology Physics</i> , 2012 , 83, 1132-40	4	58
21	A novel technique to enable experimental validation of deformable dose accumulation. <i>Medical Physics</i> , 2012 , 39, 765-76	4.4	50
20	Introduction and a Word of Thanks. <i>Medical Physics</i> , 2012 , 39, 3526-3526	4.4	
19	Navigator channel adaptation to reconstruct three dimensional heart volumes from two dimensional radiotherapy planning data. <i>BMC Medical Physics</i> , 2012 , 12, 1		7

18	Quasi-static magnetic resonance elastography at 7 T to measure the effect of pathology before and after fixation on tissue biomechanical properties. <i>Magnetic Resonance in Medicine</i> , 2012 , 68, 152-65	4.4	11
17	Demons deformable registration of CT and cone-beam CT using an iterative intensity matching approach. <i>Medical Physics</i> , 2011 , 38, 1785-98	4.4	64
16	Imaging and image-guided radiation therapy in liver cancer. <i>Seminars in Radiation Oncology</i> , 2011 , 21, 247-55	5.5	37
15	Biomechanical-based image registration for head and neck radiation treatment. <i>Physics in Medicine and Biology</i> , 2010 , 55, 6491-500	3.8	32
14	MR imaging correlates of intratumoral tissue types within colorectal liver metastases: a high-spatial-resolution fresh ex vivo radiologic-pathologic correlation study. <i>Radiology</i> , 2010 , 254, 747-54	20.5	18
13	Deformable image registration of heterogeneous human lung incorporating the bronchial tree. <i>Medical Physics</i> , 2010 , 37, 4560-71	4.4	34
12	Reconstruction of 3D lung models from 2D planning data sets for Hodgkin's lymphoma patients using combined deformable image registration and navigator channels. <i>Medical Physics</i> , 2010 , 37, 1017-28	4.4	10
11	Technical note: fiducial markers for correlation of whole-specimen histopathology with MR imaging at 7 tesla. <i>Medical Physics</i> , 2010 , 37, 2321-8	4.4	13
10	Evaluating the extent of cell death in 3D high frequency ultrasound by registration with whole-mount tumor histopathology. <i>Medical Physics</i> , 2010 , 37, 4288-97	4.4	9
9	Adaptive management of liver cancer radiotherapy. <i>Seminars in Radiation Oncology</i> , 2010 , 20, 107-15	5.5	26
8	Technique for Accurate GTV Definition in MR-Guided HDR Prostate Brachytherapy. <i>Brachytherapy</i> , 2010 , 9, S24-S25	2.4	2
7	Results of a multi-institution deformable registration accuracy study (MIDRAS). <i>International Journal of Radiation Oncology Biology Physics</i> , 2010 , 76, 583-96	4	300
6	Accuracy and sensitivity of finite element model-based deformable registration of the prostate. <i>Medical Physics</i> , 2008 , 35, 4019-25	4.4	43
5	Improving image-guided target localization through deformable registration. <i>Acta Oncologica</i> , 2008 , 47, 1279-85	3.2	42
4	Image registration in intensity- modulated, image-guided and stereotactic body radiation therapy. <i>Frontiers of Radiation Therapy and Oncology</i> , 2007 , 40, 94-115		19
3	Feasibility of a novel deformable image registration technique to facilitate classification, targeting, and monitoring of tumor and normal tissue. <i>International Journal of Radiation Oncology Biology Physics</i> , 2006 , 64, 1245-54	4	119
2	Adaptive registration using local information measures. <i>Medical Image Analysis</i> , 2004 , 8, 465-73	15.4	44
1	A comparison of computer-controlled versus manual on-line patient setup adjustment. <i>Journal of Applied Clinical Medical Physics</i> , 2002 , 3, 241	2.3	9

