

# Biplab Sarkar

## List of Publications by Year in descending order

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82  
papers

349  
citations

932766

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1058022

14  
g-index

86  
all docs

86  
docs citations

86  
times ranked

246  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quality assurance of dynamic parameters in volumetric modulated arc therapy. British Journal of Radiology, 2012, 85, 1002-1010.	1.0	31
2	A low gradient junction technique of craniospinal irradiation using volumetric-modulated arc therapy and its advantages over the conventional therapy. Cancer Radiotherapie: Journal De La Societe Francaise De Radiotherapie Oncologique, 2018, 22, 62-72.	0.6	17
3	Relative dosimetrical verification in high dose rate brachytherapy using two-dimensional detector array IMatriXX. Journal of Medical Physics, 2011, 36, 171.	0.1	17
4	A mathematical approach to beam matching. British Journal of Radiology, 2013, 86, 20130238.	1.0	15
5	Methodology to reduce 6D patient positional shifts into a 3D linear shift and its verification in frameless stereotactic radiotherapy. Physics in Medicine and Biology, 2018, 63, 075004.	1.6	15
6	Short tangential arcs in VMAT based breast and chest wall radiotherapy lead to conformity of the breast dose with lesser cardiac and lung doses: a prospective study of breast conservation and mastectomy patients. Australasian Physical and Engineering Sciences in Medicine, 2017, 40, 729-736.	1.4	14
7	Spatial orientation of coronary arteries and its implication for breast and thoracic radiotherapy—proposing “coronary strip” as a new organ at risk. Strahlentherapie Und Onkologie, 2018, 194, 711-718.	1.0	14
8	Dose fall-off patterns with volumetric modulated arc therapy and three-dimensional conformal radiotherapy including the “organ at risk” effect. Experience of linear accelerator-based frameless radiosurgery from a single institution. Cancer Radiotherapie: Journal De La Societe Francaise De Radiotherapie Oncologique, 2019, 23, 138-146.	0.6	14
9	Do technological advances in linear accelerators improve dosimetric outcomes in stereotaxy? A head-on comparison of seven linear accelerators using volumetric modulated arc therapy-based stereotactic planning. Indian Journal of Cancer, 2016, 53, 166.	0.2	13
10	Small bowel toxicity in pelvic radiotherapy for postoperative gynecological cancer: Comparison between conformal radiotherapy and intensity modulated radiotherapy. Asia-Pacific Journal of Clinical Oncology, 2013, 9, 280-284.	0.7	11
11	Detector system dose verification comparisons for arc therapy: couch vs. gantry mount. Journal of Applied Clinical Medical Physics, 2014, 15, 41-53.	0.8	10
12	Technical Note: Rotational positional error corrected intrafraction set-up margins in stereotactic radiotherapy: A spatial assessment for coplanar and noncoplanar geometry. Medical Physics, 2019, 46, 4749-4754.	1.6	9
13	Standardization of volumetric modulated arc therapy-based frameless stereotactic technique using a multidimensional ensemble-aided knowledge-based planning. Medical Physics, 2019, 46, 1953-1962.	1.6	9
14	Dosimetric comparison of short and full arc in spinal PTV in volumetric-modulated arc therapy-based craniospinal irradiation. Medical Dosimetry, 2020, 45, 1-6.	0.4	9
15	Influence of monte carlo variance with fluence smoothing in VMAT treatment planning with Monaco TPS. Indian Journal of Cancer, 2016, 53, 158.	0.2	8
16	Optimized point dose measurement for monitor unit verification in intensity modulated radiation therapy using 6 MV photons by three different methodologies with different detector-phantom combinations: A comparative study. Journal of Medical Physics, 2010, 35, 144.	0.1	8
17	Rotational positional error-corrected linear set-up margin calculation technique for lung stereotactic body radiotherapy in a dual imaging environment of 4-D cone beam CT and ExacTrac stereoscopic imaging. Radiologia Medica, 2021, 126, 979-988.	4.7	7
18	Choice of appropriate beam model and gantry rotational angle for low-dose gradient-based craniospinal irradiation using volumetric-modulated arc therapy. Journal of Radiotherapy in Practice, 2017, 16, 53-64.	0.2	6

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19	Validation of an integrated patient positioning system: Exactrac and iViewGT on Synergy Platform. International Journal of Cancer Therapy and Oncology, 2014, 2, 020212.	0.2	6
20	A Homogeneous Water-Equivalent Anthropomorphic Phantom for Dosimetric Verification of Radiotherapy Plans. Journal of Medical Physics, 2018, 43, 100-105.	0.1	6
21	In Regard to Onimaru etÂal. International Journal of Radiation Oncology Biology Physics, 2015, 93, 1166.	0.4	5
22	EP-1667: Dose fall off patterns and the OAR effect - experience of Linac based frameless radiosurgery. Radiotherapy and Oncology, 2016, 119, S778-S779.	0.3	5
23	EP-1685: Influence of flat, flattening filter free beam model and different MLCâ€™s on VMAT based SRS/SRT. Radiotherapy and Oncology, 2016, 119, S787.	0.3	5
24	Left-sided breast radiotherapy after conservative surgery: comparison of techniques between volumetric modulated arc therapy, forward-planning intensity-modulated radiotherapy and conventional technique. Journal of Radiotherapy in Practice, 2017, 16, 101-108.	0.2	5
25	The open access financial model hinders the growth of medical physics research in lowâ€and middleâ€income countries. Medical Physics, 2020, 47, 5972-5975.	1.6	5
26	Dosimetric comparison between conventional and conformal radiotherapy for carcinoma cervix: Are we treating the right volumes?. South Asian Journal of Cancer, 2013, 2, 128.	0.2	5
27	Electronic portal imaging device-based three-dimensional volumetric dosimetry for intensity-modulated radiotherapy pretreatment quality assurance. Journal of Medical Physics, 2019, 44, 176.	0.1	5
28	SU-F-J-126: Influence of Six Dimensional Motions in Frameless Stereotactic Dosimetry Incorporating Rotational Shifts as Equivalent Translational Shifts: A Feasibility Study for Elekta-BrainLAB Stereotactic System. Medical Physics, 2016, 43, 3436-3436.	1.6	4
29	Derivative based sensitivity analysis of gamma index. Journal of Medical Physics, 2015, 40, 240.	0.1	4
30	In regard to â€Tran A, Zhang J, Woods K, Yu V, Nguyen D, Gustafson G, Rosen L, Sheng K. Treatment planning comparison of IMPT, VMAT and 4i radiotherapy for prostate cases. Radiation oncology. 2017 Jan 11; 12(1):10â€10â€. Radiation Oncology, 2018, 13, 63.	1.2	3
31	Audit of Financial, Social and Logistic Concerns of Overseas Cancer Patients Treated at Tertiary Care Centers in New Delhi. International Journal of Radiation Oncology Biology Physics, 2019, 105, E450-E451.	0.4	3
32	In regards to Bogue J, Wan J, Lavey RS, Parsai EI. Dosimetric comparison of VMAT with integrated skin flash to 3D fieldâ€™nâ€field tangents for left breast irradiation. Journal of applied clinical medical physics. 2019 Feb;20(2):24â€24â€. Journal of Applied Clinical Medical Physics, 2019, 20, 202-203.	0.8	3
33	Role of step size and max dwell time in anatomy based inverse optimization for prostate implants. Journal of Medical Physics, 2013, 38, 148.	0.1	3
34	Personal, Social, Economic and Professional Challenges Faced by Female Radiation Oncologists in South Asia. Clinical Oncology, 2021, , .	0.6	3
35	Perfusion magnetic resonance imaging in contouring of glioblastoma patients: Preliminary experience from a single institution. Journal of Cancer Research and Therapeutics, 2020, 16, 1488.	0.3	3
36	Challenges faced by female radiation oncologists (FRO) in South Asia. Bulletin Du Cancer, 2022, , .	0.6	3

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37	EP-1641: PTV margin calculation and time dependency monitoring of intrafraction isocenter movement in lung SBRT by ExacTrac. Radiotherapy and Oncology, 2014, 111, S221.	0.3	2
38	PV-0135: Short tangential arcs in VMAT based breast and chest wall radiotherapy planning. Radiotherapy and Oncology, 2017, 123, S64.	0.3	2
39	In Regard to Dong et al. International Journal of Radiation Oncology Biology Physics, 2018, 101, 741-742.	0.4	2
40	Radiation oncology and social media platforms – Use, benefits, pitfalls. Scientometrics, 2019, 118, 699-703.	1.6	2
41	Analysis of Medical Tourism of Cancer patients in Asia-Africa-Oceania region and Financial Toxicity due to Migration. International Journal of Radiation Oncology Biology Physics, 2020, 108, e422.	0.4	2
42	Daily waiting and treatment times at an advanced radiation oncology setup: A 4-year audit of consecutive patients from single institution. Journal of Cancer Research and Therapeutics, 2021, 17, 523.	0.3	2
43	In regards to Pokhrel et al. Clinical validation of ring-mounted halcyon linac for lung SBRT: Comparison to SBRT-dedicated arm linac treatments. JACMP 2021 Jan;22(1):261-70. Journal of Applied Clinical Medical Physics, 2021, 22, 281-282.	0.8	2
44	SU-E-J-39: Comparison of PTV Margins Determined by In-Room Stereoscopic Image Guidance and by On-Board Cone Beam Computed Tomography Technique for Brain Radiotherapy Patients. Medical Physics, 2014, 41, 163-163.	1.6	2
45	SU-E-T-226: Junction Free Craniospinal Irradiation in Linear Accelerator Using Volumetric Modulated Arc Therapy : A Novel Technique Using Dose Tapering. Medical Physics, 2014, 41, 275-275.	1.6	2
46	SU-F-T-429: Craniospinal Irradiation by VMAT Technique: Impact of FFF Beam and High Resolution MLC On Plan Quality. Medical Physics, 2016, 43, 3561-3561.	1.6	2
47	Dosimetric comparison of three dimensional conformal radiotherapy and intensity modulated radiotherapy in high grade gliomas. Polish Journal of Medical Physics and Engineering, 2011, 17, .	0.2	2
48	4D radiotherapy using a linear accelerator: A misnomer in violation of the solid geometric boundary conditions in three-dimensional Euclidean space. Journal of Medical Physics, 2019, 44, 283.	0.1	2
49	Growth Characteristics of Woman Radiation Oncologists in South Asia: Assessment of Gender Neutrality and Leadership Position. International Journal of Radiation Oncology Biology Physics, 2021, 111, e339.	0.4	2
50	Art of publication: A beginner's guide to understanding the non-linear dynamics between research and publication. Cancer Research Statistics and Treatment, 2021, 4, 200.	0.1	2
51	Trajectory modulated arc therapy using quasi-continuous couch motion layered on top of volumetric modulated arc therapy in left breast and chest wall irradiation: a feasibility study. Journal of Radiotherapy in Practice, 2017, 16, 133-140.	0.2	1
52	EP-1203: Post-radiation T2 changes in MRI brain: Is there a dose-effect relation?. Radiotherapy and Oncology, 2018, 127, S670-S671.	0.3	1
53	EP-1922: Standardisation of VMAT frameless SRS/SRT planning using ensemble mapped knowledge based planning. Radiotherapy and Oncology, 2018, 127, S1044-S1045.	0.3	1
54	An Incorrect Impression of Dose Versus the Ischemic Cardiac Toxicity Risk Profile for Breast and Chest Wall Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2020, 106, 451-452.	0.4	1

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55	Assessment of Unplanned Treatment Interruptions During Modern Day Radiotherapy in a Large Patient Database. International Journal of Radiation Oncology Biology Physics, 2020, 108, e208.	0.4	1
56	Challenges Faced by Woman Radiation Oncologists (WRO) in South Asia. International Journal of Radiation Oncology Biology Physics, 2020, 108, e443.	0.4	1
57	SU-F-J-47: Inherent Uncertainty in the Positional Shifts Determined by a Volumetric Cone Beam Imaging System. Medical Physics, 2016, 43, 3416-3416.	1.6	1
58	SU-F-T-414: Mathematical Formulation of Gantry Starting Angle for Right Medial Tangential Arc in Left Intact Partial Breast Irradiation Using Volumetric Modulated Arc Therapy (VMAT). Medical Physics, 2016, 43, 3558-3558.	1.6	1
59	SU-F-T-422: Detection of Optimal Tangential Partial Arc Span for VMAT Planning in Intact Left-Breast Treatment. Medical Physics, 2016, 43, 3560-3560.	1.6	1
60	Simple electronic portal imager-based pretreatment quality assurance using Acuros XB: A feasibility study. Journal of Medical Physics, 2019, 44, 231.	0.1	1
61	Growth Characteristics of Female Radiation/Clinical Oncologists in South Asia: Assessment of Gender Neutrality and Leadership Position. Clinical Oncology, 2022, , .	0.6	1
62	Calculation of set-up margin in frameless stereotactic radiotherapy accounting for translational and rotational patient positioning error. Journal of Cancer Research and Therapeutics, 2023, 19, 169.	0.3	1
63	EP-1774: Utilization Of Osld As The Quality Control Indicator For In-Vivo Measurements In Tbi Treatment. Radiotherapy and Oncology, 2018, 127, S952.	0.3	0
64	Incidental Dose to Ipsilateral and Contralateral Internal Mammary Chain by Partial Tangential Arc Technique: A Single Institutional Analysis in Breast Cancer Patients. Clinical Oncology, 2019, 31, 401.	0.6	0
65	Treatment Outcome and Patterns of Failure in Patients with Maxillary Sinus Cancer: Clinical Experience from a Regional Cancer Centre in North India. Indian Journal of Surgical Oncology, 2020, 11, 401-405.	0.3	0
66	Fear psychosis for the medical physicists' profession in the worldwide COVID-19 crisis. Current Medicine Research and Practice, 2021, 11, 152.	0.1	0
67	A mathematical formulation for volume expansions in contouring for radiotherapy planning. Journal of Cancer Research and Therapeutics, 2021, 17, 1125.	0.3	0
68	Solution of Lagrange's equation of motion from the first principle for volumetric modulated arc therapy delivery. Health and Technology, 2021, 11, 677-680.	2.1	0
69	SU-E-T-141: Leaf Position Verification during Dynamic Beam Delivery of Volumetric Modulated Arc Therapy Using Electronic Portal Imaging Device. Medical Physics, 2011, 38, 3518-3519.	1.6	0
70	SU-E-T-68: Beam Matching of Linear Accelerators by Using Mathematical Functions. Medical Physics, 2011, 38, 3501-3501.	1.6	0
71	SU-E-T-57: Estimation of Uncertainty in Dose Delivery Due to MLC Position Inaccuracies by Inverse Derivative Method during Volumetric Modulated Arc Therapy Delivery by Elekta Beam Modulator. Medical Physics, 2012, 39, 3715-3715.	1.6	0
72	SU-E-T-51: Evaluation of Velocity Dependent Positional Error of Dynamic Multi Leaf Collimator during VMAT Delivery Using a Well Defined Mathematical Function. Medical Physics, 2012, 39, 3714-3714.	1.6	0

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73	SU-E-T-83: Validation and Testing of Performance of a Novel Phantom Specially Designed for Volumetric Modulated Arc Therapy MU/dose Verification. Medical Physics, 2013, 40, 222-222.	1.6	0
74	Consistency analysis for the performance of planar detector systems used in advanced radiotherapy. International Journal of Cancer Therapy and Oncology, 2014, 3, 030110.	0.2	0
75	SU-E-T-77: A Statistical Approach to Manage Quality for Pre-treatment Verification in IMRT/VMAT. Medical Physics, 2015, 42, 3348-3348.	1.6	0
76	Comparing SUV values of images at PET-CT console and the RT planning console using identical dataset of a study phantom. Journal of Cancer Research and Therapeutics, 2016, 12, 131.	0.3	0
77	SU-F-T-327: Total Body Irradiation In-Vivo Dose Measurements Using Optically Stimulated Luminescence (OSL) NanoDots and Farmer Type Ion Chamber. Medical Physics, 2016, 43, 3538-3538.	1.6	0
78	SU-F-P-50: Performance Evaluation of Optically Stimulated Luminescence (OSL) NanoDots in Therapy and Imaging In-Vivo Dose Measurement During Patient Treatment. Medical Physics, 2016, 43, 3369-3369.	1.6	0
79	Reference to: Chen YG, Li AC, Li WY, Huang MY, Li XB, Chen MQ, et al. The feasibility study of a hybrid coplanar arc technique versus hybrid intensity-modulated radiotherapy in treatment of early-stage left-sided breast cancer with simultaneous-integrated boost. J Med Phys 2017;42:1-8. Journal of Medical Physics, 2017, 42, 99.	0.1	0
80	Positional errors in linear accelerator based frameless cranial stereotaxy: A note of caution. Journal of B U on, 2017, 22, 1606-1607.	0.4	0
81	Compatibility assessment of Varian and Elekta robotic couch-assisted six-dimensional patient positioning correction systems with external independent imaging modalities. Precision Radiation Oncology, 2021, 5, 244-250.	0.4	0
82	Determination of Multileaf Collimator Positional Errors as a Function of Dose Rate, Speed, and Delivery Interruption for Volumetric-Modulated Arc Therapy Delivery.. Journal of Medical Physics, 2021, 46, 286-294.	0.1	0