Alexandru Dasu

List of Publications by Year
in descending order

131 papers	2,161 citations	236833 25 h-index	265120 42 g-index
138 all docs	138 docs citations	138 times ranked	2028 citing authors

#	Article	IF	Citations
1	Prostate alpha/beta revisited â€“ an analysis of clinical results from 14 168 patients. Acta OncolÃ³gica, 2012, 51, 963-974.	0.8	182
2	Is the Î±/Î² Value for Prostate Tumours Low Enough to be Safely Used in Clinical Trials?. Clinical Oncology, 2007, 19, 289-301.	0.6	156
3	Theoretical simulation of tumour oxygenation and results from acute and chronic hypoxia. Physics in Medicine and Biology, 2003, 48, 2829-2842.	1.6	117
4	The use of risk estimation models for the induction of secondary cancers following radiotherapy. Acta OncolÃ³gica, 2005, 44, 339-347.	0.8	108
5	Dose prescription and treatment planning based on FMISO-PET hypoxia. Acta OncolÃ³gica, 2012, 51, 222-230.	0.8	85
6	Inducible Repair and the Two Forms of Tumour Hypoxia - Time for a Paradigm Shift. Acta OncolÃ³gica, 1999, 38, 903-918.	0.8	68
7	Should single or distributed parameters be used to explain the steepness of tumour control probability curves?. Physics in Medicine and Biology, 2003, 48, 387-397.	1.6	62
8	Dose prescription and optimisation based on tumour hypoxia. Acta OncolÃ³gica, 2009, 48, 1181-1192.	0.8	59
9	New insights into factors influencing the clinically relevant oxygen enhancement ratio. Radiotherapy and Oncology, 1998, 46, 269-277.	0.3	57
10	Vasculature and microenvironmental gradients: the missing links in novel approaches to cancer therapy?. Advances in Enzyme Regulation, 1998, 38, 281-299.	2.9	50
11	Clinical oxygen enhancement ratio of tumors in carbon ion radiotherapy: the influence of local oxygenation changes. Journal of Radiation Research, 2014, 55, 902-911.	0.8	50
12	Impact of variable RBE on proton fractionation. Medical Physics, 2013, 40, 011705.	1.6	48
13	Quality control in cone-beam computed tomography (CBCT) EFOMP-ESTRO-IAEA protocol (summary) Tj ETQq1 1 0.784314 rgBT /Overl	0.4	45
14	Dose-effect models for risk â€“ relationship to cell survival parameters. Acta OncolÃ³gica, 2005, 44, 829-835.	0.8	39
15	The effects of hypoxia on the theoretical modelling of tumour control probability. Acta OncolÃ³gica, 2005, 44, 563-571.	0.8	38
16	Does the uncertainty in relative biological effectiveness affect patient treatment in proton therapy?. Radiotherapy and Oncology, 2021, 163, 177-184.	0.3	38
17	Modelling Tumour Oxygenation, Reoxygenation and Implications on Treatment Outcome. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-9.	0.7	36
18	Models for the risk of secondary cancers from radiation therapy. Physica Medica, 2017, 42, 232-238.	0.4	32

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19	Spatial correlation of linear energy transfer and relative biological effectiveness with suspected treatmentâ€related toxicities following proton therapy for intracranial tumors. Medical Physics, 2020, 47, 342-351.	1.6	30
20	Theoretical simulation of oxygen tension measurement in tissues using a microelectrode: I. The response function of the electrode. Physiological Measurement, 2001, 22, 713-725.	1.2	29
21	The relationship between temporal variation of hypoxia, polarographic measurements and predictions of tumour response to radiation. Physics in Medicine and Biology, 2004, 49, 4463-4475.	1.6	29
22	Treatment fractionation for stereotactic radiotherapy of lung tumours: a modelling study of the influence of chronic and acute hypoxia on tumour control probability. Radiation Oncology, 2014, 9, 149.	1.2	29
23	Liquid ionization chamber measurements of dose distributions in small 6 MV photon beams. Physics in Medicine and Biology, 1998, 43, 21-36.	1.6	27
24	Evaluating Tumor Response of Non-Small Cell Lung Cancer Patients With 18F-Fludeoxyglucose Positron Emission Tomography: Potential for Treatment Individualization. International Journal of Radiation Oncology Biology Physics, 2015, 91, 376-384.	0.4	27
25	Respiratory gating for proton beam scanning versus photon 3D-CRT for breast cancer radiotherapy. Acta OncolÃ³gica, 2016, 55, 577-583.	0.8	27
26	Are IMRT treatments in the head and neck region increasing the risk of secondary cancers?. Acta OncolÃ³gica, 2014, 53, 1041-1047.	0.8	25
27	To fractionate or not to fractionate? That is the question for the radiosurgery of hypoxic tumors. Journal of Neurosurgery, 2014, 121, 110-115.	0.9	25
28	Quantifying Tumour Hypoxia By Pet Imaging - A Theoretical Analysis. Advances in Experimental Medicine and Biology, 2009, 645, 267-272.	0.8	25
29	Superfractionation as a potential hypoxic cell radiosensitizer: prediction of an optimum dose per fraction. International Journal of Radiation Oncology Biology Physics, 1999, 43, 1083-1094.	0.4	24
30	Inducible Repair and Intrinsic Radiosensitivity: A Complex but Predictable Relationship?. Radiation Research, 2000, 153, 279-288.	0.7	24
31	Secondary Malignancies From Prostate Cancer Radiation Treatment: A Risk Analysis of the Influence of Target Margins and Fractionation Patterns. International Journal of Radiation Oncology Biology Physics, 2011, 79, 738-746.	0.4	23
32	Optimal fractionation in radiotherapy for non-small cell lung cancer â€“ a modelling approach. Acta OncolÃ³gica, 2015, 54, 1592-1598.	0.8	22
33	Vascular oxygen content and the tissue oxygenation-A theoretical analysis. Medical Physics, 2008, 35, 539-545.	1.6	21
34	Survival and tumour control probability in tumours with heterogeneous oxygenation: A comparison between the linear-quadratic and the universal survival curve models for high doses. Acta OncolÃ³gica, 2014, 53, 1035-1040.	0.8	21
35	Practice patterns of image guided particle therapy in Europe: A 2016 survey of the European Particle Therapy Network (EPTN). Radiotherapy and Oncology, 2018, 128, 4-8.	0.3	21
36	Theoretical simulation of oxygen tension measurement in the tissue using a microelectrode: II. Simulated measurements in tissues. Radiotherapy and Oncology, 2002, 64, 109-118.	0.3	19

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37	Towards harmonizing clinical linear energy transfer (LET) reporting in proton radiotherapy: a European multi-centric study. Acta OncolÃ³gica, 2022, 61, 206-214.	0.8	18
38	Radiation burden from secondary doses to patients undergoing radiation therapy with photons and light ions and radiation doses from imaging modalities. Radiation Protection Dosimetry, 2014, 161, 357-362.	0.4	17
39	Changes in skin microcirculation during radiation therapy for breast cancer. Acta OncolÃ³gica, 2017, 56, 1072-1080.	0.8	17
40	The influence of breathing motion and a variable relative biological effectiveness in proton therapy of left-sided breast cancer. Acta OncolÃ³gica, 2017, 56, 1428-1436.	0.8	17
41	Impact of <scp>SBRT</scp> fractionation in hypoxia dose painting â€" Accounting for heterogeneous and dynamic tumor oxygenation. Medical Physics, 2019, 46, 2512-2521.	1.6	17
42	Towards Multidimensional Radiotherapy: Key Challenges for Treatment Individualisation. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-8.	0.7	15
43	Hyperfractionation as an effective way of overcoming radioresistance. International Journal of Radiation Oncology Biology Physics, 1998, 42, 705-709.	0.4	14
44	Normal tissue sparing potential of scanned proton beams with and without respiratory gating for the treatment of internal mammary nodes in breast cancer radiotherapy. Physica Medica, 2018, 52, 81-85.	0.4	14
45	Radiation-induced Vascular Damage and the Impact on the Treatment Outcome of Stereotactic Body Radiotherapy. Anticancer Research, 2019, 39, 2721-2727.	0.5	14
46	What is the Clinically Relevant Relative Biologic Effectiveness? A Warning for Fractionated Treatments With High Linear Energy Transfer Radiation. International Journal of Radiation Oncology Biology Physics, 2008, 70, 867-874.	0.4	13
47	Defining the hypoxic target volume based on positron emission tomography for image guided radiotherapy â€" the influence of the choice of the reference region and conversion function. Acta OncolÃ³gica, 2017, 56, 819-825.	0.8	13
48	Imaging Tumor Perfusion and Oxidative Metabolism in Patients With Head-and-Neck Cancer Using 1-[11C]-Acetate PET During Radiotherapy: Preliminary Results. International Journal of Radiation Oncology Biology Physics, 2012, 82, 554-560.	0.4	12
49	Impact of physiological breathing motion for breast cancer radiotherapy with proton beam scanning â€" An in silico study. Physica Medica, 2017, 39, 88-94.	0.4	12
50	Hypoxia Induced by Vascular Damage at High Doses Could Compromise the Outcome of Radiotherapy. Anticancer Research, 2019, 39, 2337-2340.	0.5	12
51	Will intrafraction repair have negative consequences on extreme hypofractionation in prostate radiation therapy?. British Journal of Radiology, 2015, 88, 20150588.	1.0	11
52	Modelling of a proton spot scanning system using MCNP6. Journal of Physics: Conference Series, 2017, 860, 012025.	0.3	11
53	Comments on `Comparison of in vitro and in vivo Î±/Î² ratios for prostate cancer'. Physics in Medicine and Biology, 2005, 50, L1-L4.	1.6	10
54	High brachytherapy doses can counteract hypoxia in cervical cancerâ€"a modelling study. Physics in Medicine and Biology, 2017, 62, 560-572.	1.6	10

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55	Cancer risk after breast proton therapy considering physiological and radiobiological uncertainties. Physica Medica, 2020, 76, 1-6.	0.4	10
56	Potential Benefit of Scanned Proton Beam versus Photons as Adjuvant Radiation Therapy in Breast Cancer. International Journal of Particle Therapy, 2015, 1, 845-855.	0.9	10
57	Out-of-field doses from secondary radiation produced in proton therapy and the associated risk of radiation-induced cancer from a brain tumor treatment. Physica Medica, 2018, 53, 129-136.	0.4	9
58	RBE for proton radiation therapy â€“ a Nordic view in the international perspective. Acta OncolÃ³gica, 2020, 59, 1151-1156.	0.8	9
59	Mapping the Future of Particle Radiobiology in Europe: The INSPIRE Project. Frontiers in Physics, 2020, 8, .	1.0	9
60	Treatment planning optimisation based on imaging tumour proliferation and cell density. Acta OncolÃ³gica, 2008, 47, 1221-1228.	0.8	8
61	Evaluation of third treatment week as temporal window for assessing responsiveness on repeated FDG-PET-CT scans in Non-Small Cell Lung Cancer patients. Physica Medica, 2018, 46, 45-51.	0.4	8
62	Non-linear conversion of HX4 uptake for automatic segmentation of hypoxic volumes and dose prescription. Acta OncolÃ³gica, 2018, 57, 485-490.	0.8	8
63	The Relationship Between Vascular Oxygen Distribution And Tissue Oxygenation. Advances in Experimental Medicine and Biology, 2009, 645, 255-260.	0.8	8
64	Accounting for Two Forms of Hypoxia for Predicting Tumour Control Probability in Radiotherapy: An In Silico Study. Advances in Experimental Medicine and Biology, 2018, 1072, 183-187.	0.8	8
65	Relative clinical effectiveness of carbon ion radiotherapy: theoretical modelling for H&N tumours. Journal of Radiation Research, 2015, 56, 639-645.	0.8	7
66	Treatment modelling: The influence of micro-environmental conditions. Acta OncolÃ³gica, 2008, 47, 896-905.	0.8	6
67	Long-Term Effects and Secondary Tumors. , 2014, , 223-233.		6
68	Theoretical Simulation of Tumour Oxygenation - Practical Applications. , 2006, 578, 357-362.		6
69	<scp>T1</scp> and <scp>T2</scp> Mapping for Early Detection of Treatmentâ€Related Myocardial Changes in Breast Cancer Patients. Journal of Magnetic Resonance Imaging, 2022, 55, 620-622.	1.9	5
70	Determining Out-of-Field Doses and Second Cancer Risk From Proton Therapy in Young Patientsâ€"An Overview. Frontiers in Oncology, 0, 12, .	1.3	5
71	Impact of irradiation setup in proton spot scanning brain therapy on organ doses from secondary radiation. Radiation Protection Dosimetry, 2018, 180, 261-266.	0.4	4
72	RADIATION PROTECTION MEASUREMENTS WITH THE VARIANCEâ€“COVARIANCE METHOD IN THE STRAY RADIATION FIELDS FROM PHOTON AND PROTON THERAPY FACILITIES. Radiation Protection Dosimetry, 2018, 180, 338-341.	0.4	4

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73	Assessment of the Probability of Tumour Control for Prescribed Doses Based on Imaging of Oxygen Partial Pressure. Advances in Experimental Medicine and Biology, 2021, 1269, 185-190.	0.8	4
74	The Impact of Tissue Microenvironment on Treatment Simulation. Advances in Experimental Medicine and Biology, 2003, 510, 63-67.	0.8	4
75	Radiobiology of Prostate Cancer. , 2012, , 79-101.		4
76	Clinical implications of the ISC technique for breast cancer radiotherapy and comparison with clinical recommendations. Anticancer Research, 2014, 34, 3563-8.	0.5	4
77	Dose painting by numbers - do the practical limitations of the technique decrease or increase the probability of controlling tumours?. IFMBE Proceedings, 2013, , 1731-1734.	0.2	3
78	EPR Oximetry of Cetuximab-Treated Head-and-Neck Tumours in a Mouse Model. Cell Biochemistry and Biophysics, 2017, 75, 299-309.	0.9	3
79	Organ doses from a proton gantry-mounted cone-beam computed tomography system characterized with MCNP6 and GATE. Physica Medica, 2018, 53, 56-61.	0.4	3
80	Comments on `Standard effective doses for proliferative tumours'. Physics in Medicine and Biology, 2000, 45, L45-L50.	1.6	2
81	Conversion of polarographic electrode measurementsâ€"a computer based approach. Physics in Medicine and Biology, 2005, 50, 4581-4591.	1.6	2
82	In Response to Dr. Karger etÂal.. International Journal of Radiation Oncology Biology Physics, 2008, 70, 1614-1615.	0.4	2
83	Predictive Models of Tumour Response to Treatment Using Functional Imaging Techniques. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-2.	0.7	2
84	The Six Rs of Head and Neck Cancer Radiotherapy. , 0, , .		2
85	Simultaneous Truth and Performance Level Estimation Method for Evaluation of Target Contouring in Radiosurgery. Anticancer Research, 2021, 41, 279-288.	0.5	2
86	Computer Simulation of Oxygen Microelectrode Measurements in Tissues. Advances in Experimental Medicine and Biology, 2003, 510, 157-161.	0.8	2
87	Biologically-optimised IMRT based on molecular imaging of tumour hypoxiaâ€"the impact of the tracer used. IFMBE Proceedings, 2013, , 1742-1745.	0.2	2
88	Quantitative Hypoxia Imaging for Treatment Planning of Radiotherapy. Advances in Experimental Medicine and Biology, 2014, 812, 143-148.	0.8	2
89	Analytical anisotropic algorithm versus pencil beam convolution for treatment planning of breast cancer: implications for target coverage and radiation burden of normal tissue. Anticancer Research, 2015, 35, 2841-8.	0.5	2
90	353 The issue of dose modifying factors for risk estimations for protons. Radiotherapy and Oncology, 2005, 76, S159.	0.3	1

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91	Radiobiological Framework for the Evaluation of Stereotactic Radiosurgery Plans for Invasive Brain Tumours. ISRN Oncology, 2013, 2013, 1-5.	2.1	1
92	Quality controls for CBCT devices: The efomp guideline for quality assurance of images and dose. Physica Medica, 2016, 32, 280-281.	0.4	1
93	Preliminary study of a new gamma imager for on-line proton range monitoring during proton radiotherapy. Journal of Instrumentation, 2017, 12, C05009-C05009.	0.5	1
94	SP-0689: CBCT QA: European guidelines by EFOMP-ESTRO-IAEA. Radiotherapy and Oncology, 2018, 127, S360-S361.	0.3	1
95	OC-0418 European multi-centric study on variable proton RBE dose calculations for multiple anatomical sites. Radiotherapy and Oncology, 2021, 161, S314-S315.	0.3	1
96	Theoretical Simulation of Tumour Hypoxia Measurements. , 2006, 578, 369-374.		1
97	The Risk for Secondary Cancers in Patients Treated for Prostate Carcinoma â€“ An Analysis with the Competition Dose Response Model. IFMBE Proceedings, 2009, , 237-240.	0.2	1
98	PD-0493: Extreme hypofractionation in SBRT should be pursued with caution - impact of tumour reoxygenation. Radiotherapy and Oncology, 2013, 106, S192.	0.3	0
99	EP-1229: AAA vs PBC for breast treatment planning - analysis based on the National Swedish Breast Cancer Group recommendations. Radiotherapy and Oncology, 2014, 111, S65.	0.3	0
100	EP-1231: Clinical implications of ISC technique for breast radiotherapy with comparison to SweBCG recommendations. Radiotherapy and Oncology, 2014, 111, S66.	0.3	0
101	EP-1594: Proton pencil beam scanning as a RT modality in breast cancer: A comparison to gated and non-gated photon techniques. Radiotherapy and Oncology, 2014, 111, S200-S201.	0.3	0
102	EP-1626: Predicting survival and tumour control probability for SBRT treatments - a comparison between the LQ and USC models. Radiotherapy and Oncology, 2014, 111, S215-S216.	0.3	0
103	EP-1633: Clinical OER of tumors in carbon ion radiotherapy and the influence of local oxygenation changes. Radiotherapy and Oncology, 2014, 111, S218-S219.	0.3	0
104	PO-0900: Evaluating tumour response of NSCLC patients with FDG-PET: potential for treatment individualisation. Radiotherapy and Oncology, 2014, 111, S105.	0.3	0
105	EP-1473: Modelling the impact of oxygenation, accelerated repopulation and heterogeneous fractionation on SBRT outcome. Radiotherapy and Oncology, 2015, 115, S799-S800.	0.3	0
106	PO-0776: Are scanned protons better than photons for breast cancer radiation therapy with respiratory gating?. Radiotherapy and Oncology, 2015, 115, S386-S387.	0.3	0
107	PO-1066: PET FMISO investigation of head and neck tumor cell lines treated with cetuximab. Radiotherapy and Oncology, 2015, 115, S575.	0.3	0
108	EP-1232: Will extreme hypofractionation always improve outcome in prostate radiotherapy?. Radiotherapy and Oncology, 2015, 115, S667.	0.3	0

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109	EP-1676: Sparing potential of scanned protons for the treatment of intramammary nodes in breast radiotherapy. Radiotherapy and Oncology, 2016, 119, S783.	0.3	0
110	EP-1762: Impact of physiological breathing motion for breast cancer radiotherapy proton beam scanning. Radiotherapy and Oncology, 2016, 119, S826.	0.3	0
111	EP-1874: Effective radiosensitivity maps of early tumour responsiveness based on repeated FDG PET scans. Radiotherapy and Oncology, 2016, 119, S884-S885.	0.3	0
112	OC-0352: The high doses employed in brachytherapy of cervical cancer counteract hypoxia â€“ a modelling study. Radiotherapy and Oncology, 2016, 119, S162.	0.3	0
113	EP-1154: Changes in skin microcirculation during radiation therapy for breast cancer. Radiotherapy and Oncology, 2017, 123, S627-S628.	0.3	0
114	PO-0832: The impact of variable RBE and breathing control in proton radiotherapy of breast cancer. Radiotherapy and Oncology, 2017, 123, S447-S448.	0.3	0
115	EP-1602: Treatment planning individualisation based on 18F-HX4 PET hypoxic subvolumes in NSCLC patients. Radiotherapy and Oncology, 2017, 123, S864.	0.3	0
116	EP-1684: Optimal window for assessing treatment responsiveness on repeated FDG-PET scans in NSCLC patients. Radiotherapy and Oncology, 2017, 123, S919.	0.3	0
117	[OA176] The CBCT protocol of EFOMP-ESTRO-IAEA is alive: Update by eurados and din. Physica Medica, 2018, 52, 67-68.	0.4	0
118	EP-1926: Planning approaches and impact of breathing motion for proton radiotherapy in the mediastinum. Radiotherapy and Oncology, 2018, 127, S1047.	0.3	0
119	PO-0913 Cancer risk after breast proton therapy considering physiological and radiobiological uncertainties. Radiotherapy and Oncology, 2019, 133, S487.	0.3	0
120	PO-0939 Suspected impact of linear energy transfer on treatment related toxicities from proton therapy. Radiotherapy and Oncology, 2019, 133, S505-S506.	0.3	0
121	PO-1032 The potential of CBCT for setup and treatment verification in proton therapy for prostate cancer. Radiotherapy and Oncology, 2019, 133, S573.	0.3	0
122	EP-1683 Monte Carlo evaluation of organ doses from a proton gantry-mounted CBCT system. Radiotherapy and Oncology, 2019, 133, S904.	0.3	0
123	EP-1861 Simultaneous truth and performance level estimation method for contouring assessment in radiosurgery. Radiotherapy and Oncology, 2019, 133, S1011.	0.3	0
124	EP-1930 Hypoxia induced by vascular damage could impact on the outcome of stereotactic body radiotherapy. Radiotherapy and Oncology, 2019, 133, S1050-S1051.	0.3	0
125	Mathematical Description of Changes in Tumour Oxygenation from Repeated Functional Imaging. Advances in Experimental Medicine and Biology, 2018, 1072, 195-200.	0.8	0
126	The Treatment of Head and Neck Cancer. , 2018, , 101-116.		0

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127	The Radiobiology and Radiotherapy of HPV-Associated Head and Neck Squamous Cell Carcinoma. , 2018, , 69-86.		0
128	The Mechanisms Behind Tumour Repopulation. , 2018, , 53-68.		0
129	Hypoxia and Angiogenesis. , 2018, , 41-52.		0
130	Introductory Aspects of Head and Neck Cancers. , 2018, , 1-12.		0
131	OC-0699: Relative biological effectiveness in proton therapy: accounting for variability and uncertainties. Radiotherapy and Oncology, 2020, 152, S391-S392.	0.3	0