

# Iuliana Toma-Dasu

## List of Publications by Year in descending order

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87  
papers

2,033  
citations

218662  
26  
h-index

276858  
41  
g-index

87  
all docs

87  
docs citations

87  
times ranked

2140  
citing authors



#	ARTICLE	IF	CITATIONS
1	Towards the virtual tumor for optimizing radiotherapy treatments of hypoxic tumors: A novel model of heterogeneous tissue vasculature and oxygenation. <i>Journal of Theoretical Biology</i> , 2022, 547, 111175.	1.7	10
2	Assessment of the Probability of Tumour Control for Prescribed Doses Based on Imaging of Oxygen Partial Pressure. <i>Advances in Experimental Medicine and Biology</i> , 2021, 1269, 185-190.	1.6	4
3	Evolution of the hypoxic compartment on sequential oxygen partial pressure maps during radiochemotherapy in advanced head and neck cancer. <i>Physics and Imaging in Radiation Oncology</i> , 2021, 17, 100-105.	2.9	6
4	Simultaneous Truth and Performance Level Estimation Method for Evaluation of Target Contouring in Radiosurgery. <i>Anticancer Research</i> , 2021, 41, 279-288.	1.1	2
5	Radiobiological Evaluation of Combined Gamma Knife Radiosurgery and Hyperthermia for Pediatric Neuro-Oncology. <i>Cancers</i> , 2021, 13, 3277.	3.7	5
6	A Comparative Study of Radiomics and Deep-Learning Based Methods for Pulmonary Nodule Malignancy Prediction in Low Dose CT Images. <i>Frontiers in Oncology</i> , 2021, 11, 737368.	2.8	13
7	Spatial correlation of linear energy transfer and relative biological effectiveness with suspected treatment-related toxicities following proton therapy for intracranial tumors. <i>Medical Physics</i> , 2020, 47, 342-351.	3.0	30
8	RBE for proton radiation therapy – a Nordic view in the international perspective. <i>Acta Oncologica</i> , 2020, 59, 1151-1156.	1.8	9
9	The role of computational methods for automating and improving clinical target volume definition. <i>Radiotherapy and Oncology</i> , 2020, 153, 15-25.	0.6	31
10	Cancer risk after breast proton therapy considering physiological and radiobiological uncertainties. <i>Physica Medica</i> , 2020, 76, 1-6.	0.7	10
11	Recent Developments in the Prediction of Clinical Outcomes Data in Radiation Oncology. <i>International Journal of Radiation Oncology Biology Physics</i> , 2020, 108, 513-517.	0.8	0
12	Hypoxia Induced by Vascular Damage at High Doses Could Compromise the Outcome of Radiotherapy. <i>Anticancer Research</i> , 2019, 39, 2337-2340.	1.1	12
13	Radiation-induced Vascular Damage and the Impact on the Treatment Outcome of Stereotactic Body Radiotherapy. <i>Anticancer Research</i> , 2019, 39, 2721-2727.	1.1	14
14	Impact of Tumour Cell Infiltration on Treatment Outcome in Gamma Knife Radiosurgery: A Modelling Study. <i>Anticancer Research</i> , 2019, 39, 1675-1687.	1.1	3
15	Impact of SBRT fractionation in hypoxia dose painting – Accounting for heterogeneous and dynamic tumor oxygenation. <i>Medical Physics</i> , 2019, 46, 2512-2521.	3.0	17
16	Early survival prediction in non-small cell lung cancer from PET/CT images using an intra-tumor partitioning method. <i>Physica Medica</i> , 2019, 60, 58-65.	0.7	40
17	Practice patterns of image guided particle therapy in Europe: A 2016 survey of the European Particle Therapy Network (EPTN). <i>Radiotherapy and Oncology</i> , 2018, 128, 4-8.	0.6	21
18	Evaluation of third treatment week as temporal window for assessing responsiveness on repeated FDG-PET-CT scans in Non-Small Cell Lung Cancer patients. <i>Physica Medica</i> , 2018, 46, 45-51.	0.7	8



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19	Non-linear conversion of HX4 uptake for automatic segmentation of hypoxic volumes and dose prescription. <i>Acta Oncol</i> <sup>3</sup> <i>gica</i> , 2018, 57, 485-490.	1.8	8
20	Early tumor response prediction for lung cancer patients using novel longitudinal pattern features from sequential PET/CT image scans. <i>Physica Medica</i> , 2018, 54, 21-29.	0.7	38
21	Multi-institutional study of the variability in target delineation for six targets commonly treated with radiosurgery. <i>Acta Oncol</i> <sup>3</sup> <i>gica</i> , 2018, 57, 1515-1520.	1.8	14
22	Accounting for Two Forms of Hypoxia for Predicting Tumour Control Probability in Radiotherapy: An In Silico Study. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1072, 183-187.	1.6	8
23	Mathematical Description of Changes in Tumour Oxygenation from Repeated Functional Imaging. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1072, 195-200.	1.6	0
24	Inclusion of a variable $\langle \text{scp} \rangle \text{RBE} \langle / \text{scp} \rangle$ into proton and photon plan comparison for various fractionation schedules in prostate radiation therapy. <i>Medical Physics</i> , 2017, 44, 810-822.	3.0	49
25	High brachytherapy doses can counteract hypoxia in cervical cancer – a modelling study. <i>Physics in Medicine and Biology</i> , 2017, 62, 560-572.	3.0	10
26	Defining the hypoxic target volume based on positron emission tomography for image guided radiotherapy – the influence of the choice of the reference region and conversion function. <i>Acta Oncol</i> <sup>3</sup> <i>gica</i> , 2017, 56, 819-825.	1.8	13
27	Models for the risk of secondary cancers from radiation therapy. <i>Physica Medica</i> , 2017, 42, 232-238.	0.7	32
28	Incorporation of relative biological effectiveness uncertainties into proton plan robustness evaluation. <i>Acta Oncol</i> <sup>3</sup> <i>gica</i> , 2017, 56, 769-778.	1.8	35
29	Impact of physiological breathing motion for breast cancer radiotherapy with proton beam scanning – An in silico study. <i>Physica Medica</i> , 2017, 39, 88-94.	0.7	12
30	The influence of breathing motion and a variable relative biological effectiveness in proton therapy of left-sided breast cancer. <i>Acta Oncol</i> <sup>3</sup> <i>gica</i> , 2017, 56, 1428-1436.	1.8	17
31	Risk of second cancer following radiotherapy. <i>Physica Medica</i> , 2017, 42, 211-212.	0.7	10
32	Assessment of organs-at-risk contouring practices in radiosurgery institutions around the world – The first initiative of the OAR Standardization Working Group. <i>Radiotherapy and Oncology</i> , 2016, 121, 180-186.	0.6	17
33	Fractionated SRT using VMAT and Gamma Knife for brain metastases and gliomas – a planning study. <i>Journal of Applied Clinical Medical Physics</i> , 2015, 16, 3-16.	1.9	15
34	Towards Multidimensional Radiotherapy: Key Challenges for Treatment Individualisation. <i>Computational and Mathematical Methods in Medicine</i> , 2015, 2015, 1-8.	1.3	15
35	Predictive Models of Tumour Response to Treatment Using Functional Imaging Techniques. <i>Computational and Mathematical Methods in Medicine</i> , 2015, 2015, 1-2.	1.3	2
36	Relative clinical effectiveness of carbon ion radiotherapy: theoretical modelling for H&N tumours. <i>Journal of Radiation Research</i> , 2015, 56, 639-645.	1.6	7



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37	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.	0.8	27
38	Linear Energy Transfer Painting With Proton Therapy: A Means of Reducing Radiation Doses With Equivalent Clinical Effectiveness. International Journal of Radiation Oncology Biology Physics, 2015, 91, 1057-1064.	0.8	58
39	Will intrafraction repair have negative consequences on extreme hypofractionation in prostate radiation therapy?. British Journal of Radiology, 2015, 88, 20150588.	2.2	11
40	Optimal fractionation in radiotherapy for non-small cell lung cancer – a modelling approach. Acta Oncol <sup>3</sup> gica, 2015, 54, 1592-1598.	1.8	22
41	Radiobiological treatment planning evaluation of inverse planning simulated annealing for cervical cancer high-dose-rate brachytherapy. Anticancer Research, 2015, 35, 935-9.	1.1	0
42	Dosimetric and Radiobiological Evaluation of Hybrid Inverse Planning and Optimization for Cervical Cancer Brachytherapy. Anticancer Research, 2015, 35, 6091-6.	1.1	3
43	Dosimetric evaluation of manually and inversely optimized treatment planning for high dose rate brachytherapy of cervical cancer. Acta Oncol <sup>3</sup> gica, 2014, 53, 1012-1018.	1.8	13
44	Cancer incidence and radiation therapy in Mozambique – a comparative study to Sweden. Acta Oncol <sup>3</sup> gica, 2014, 53, 712-715.	1.8	1
45	Variability in target delineation for cavernous sinus meningioma and anaplastic astrocytoma in stereotactic radiosurgery with Leksell Gamma Knife Perfexion. Acta Neurochirurgica, 2014, 156, 2303-2313.	1.7	11
46	To fractionate or not to fractionate? That is the question for the radiosurgery of hypoxic tumors. Journal of Neurosurgery, 2014, 121, 110-115.	1.6	25
47	Clinical oxygen enhancement ratio of tumors in carbon ion radiotherapy: the influence of local oxygenation changes. Journal of Radiation Research, 2014, 55, 902-911.	1.6	50
48	Impact of Dose and Sensitivity Heterogeneity on TCP. Computational and Mathematical Methods in Medicine, 2014, 2014, 1-7.	1.3	7
49	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.	0.8	17
50	Disregarding RBE variation in treatment plan comparison may lead to bias in favor of proton plans. Medical Physics, 2014, 41, 091706.	3.0	94
51	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.	2.7	29
52	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 Oncol <sup>3</sup> gica, 2014, 53, 1035-1040.	1.8	21
53	Quantitative Hypoxia Imaging for Treatment Planning of Radiotherapy. Advances in Experimental Medicine and Biology, 2014, 812, 143-148.	1.6	2
54	Predicting the sensitivity to ion therapy based on the response to photon irradiation—experimental evidence and mathematical modelling. Anticancer Research, 2014, 34, 2801-6.	1.1	0



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55	Impact of variable RBE on proton fractionation. Medical Physics, 2013, 40, 011705.	3.0	48
56	Radiobiological description of the LET dependence of the cell survival of oxic and anoxic cells irradiated by carbon ions. Journal of Radiation Research, 2013, 54, 18-26.	1.6	51
57	Predictive value of modelled tumour control probability based on individual measurements of <i>in vitro</i> radiosensitivity and potential doubling time. British Journal of Radiology, 2013, 86, 20130015.	2.2	6
58	Dose painting by numbers - do the practical limitations of the technique decrease or increase the probability of controlling tumours?. IFMBE Proceedings, 2013, , 1731-1734.	0.3	3
59	Radiobiological Framework for the Evaluation of Stereotactic Radiosurgery Plans for Invasive Brain Tumours. ISRN Oncology, 2013, 2013, 1-5.	2.1	1
60	Dosimetric comparison between intra-cavitary breast brachytherapy techniques for accelerated partial breast irradiation and a novel stereotactic radiotherapy device for breast cancer: GammaPod <sup>®</sup> . Physics in Medicine and Biology, 2013, 58, 4409-4421.	3.0	14
61	Reply to the comment on "The influence of dose heterogeneity on tumour control probability in fractionated radiation therapy". Physics in Medicine and Biology, 2013, 58, 6591-6592.	3.0	1
62	Modelling Tumour Oxygenation, Reoxygenation and Implications on Treatment Outcome. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-9.	1.3	36
63	Is the $\alpha/\beta$ ratio for prostate tumours really low and does it vary with the level of risk at diagnosis?. Anticancer Research, 2013, 33, 1009-11.	1.1	49
64	Dose prescription and treatment planning based on FMISO-PET hypoxia. Acta Oncologica, 2012, 51, 222-230.	1.8	85
65	Prostate alpha/beta revisited " an analysis of clinical results from 14 168 patients. Acta Oncologica, 2012, 51, 963-974.	1.8	182
66	Clinical Investigations Biological effective dose evaluation and assessment of rectal and bladder complications for cervical cancer treated with radiotherapy and surgery. Journal of Contemporary Brachytherapy, 2012, 4, 205-212.	0.9	9
67	The influence of dose heterogeneity on tumour control probability in fractionated radiation therapy. Physics in Medicine and Biology, 2011, 56, 7585-7600.	3.0	11
68	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.	0.8	23
69	Dose prescription and optimisation based on tumour hypoxia. Acta Oncologica, 2009, 48, 1181-1192.	1.8	59
70	The Relationship Between Vascular Oxygen Distribution And Tissue Oxygenation. Advances in Experimental Medicine and Biology, 2009, 645, 255-260.	1.6	8
71	Quantifying Tumour Hypoxia By Pet Imaging - A Theoretical Analysis. Advances in Experimental Medicine and Biology, 2009, 645, 267-272.	1.6	25
72	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.	0.8	13



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73	In Response to Dr. Karger et al.. International Journal of Radiation Oncology Biology Physics, 2008, 70, 1614-1615.	0.8	2
74	Treatment modelling: The influence of micro-environmental conditions. Acta Oncologica, 2008, 47, 896-905.	1.8	6
75	Vascular oxygen content and the tissue oxygenation-A theoretical analysis. Medical Physics, 2008, 35, 539-545.	3.0	21
76	Theoretical Simulation of Tumour Oxygenation - Practical Applications. , 2006, 578, 357-362.		6
77	Theoretical Simulation of Tumour Hypoxia Measurements. , 2006, 578, 369-374.		1
78	The effects of hypoxia on the theoretical modelling of tumour control probability. Acta Oncologica, 2005, 44, 563-571.	1.8	38
79	Dose-effect models for risk â€“ relationship to cell survival parameters. Acta Oncologica, 2005, 44, 829-835.	1.8	39
80	The use of risk estimation models for the induction of secondary cancers following radiotherapy. Acta Oncologica, 2005, 44, 339-347.	1.8	108
81	Conversion of polarographic electrode measurementsâ€”a computer based approach. Physics in Medicine and Biology, 2005, 50, 4581-4591.	3.0	2
82	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.	3.0	29
83	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.	3.0	62
84	Theoretical simulation of tumour oxygenation and results from acute and chronic hypoxia. Physics in Medicine and Biology, 2003, 48, 2829-2842.	3.0	117
85	Computer Simulation of Oxygen Microelectrode Measurements in Tissues. Advances in Experimental Medicine and Biology, 2003, 510, 157-161.	1.6	2
86	Theoretical simulation of oxygen tension measurement in the tissue using a microelectrode: II. Simulated measurements in tissues. Radiotherapy and Oncology, 2002, 64, 109-118.	0.6	19
87	Theoretical simulation of oxygen tension measurement in tissues using a microelectrode: I. The response function of the electrode. Physiological Measurement, 2001, 22, 713-725.	2.1	29