

Heiko Enderling

List of Publications by Year in descending order

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Version: 2024-02-01

115
papers

3,620
citations

136740

32
h-index

168136

53
g-index

136
all docs

136
docs citations

136
times ranked

3519
citing authors

#	ARTICLE	IF	CITATIONS
1	Predictive Radiation Oncology – A New NCI–DOE Scientific Space and Community. Radiation Research, 2022, 197, .	0.7	4
2	Classical mathematical models for prediction of response to chemotherapy and immunotherapy. PLoS Computational Biology, 2022, 18, e1009822.	1.5	36
3	The Radiosensitivity Index Gene Signature Identifies Distinct Tumor Immune Microenvironment Characteristics Associated With Susceptibility to Radiation Therapy. International Journal of Radiation Oncology Biology Physics, 2022, 113, 635-647.	0.4	11
4	Early response dynamics predict treatment failure in patients with recurrent and/or metastatic head and neck squamous cell carcinoma treated with cetuximab and nivolumab. Oral Oncology, 2022, 127, 105787.	0.8	10
5	Mathematical modeling of radiotherapy and its impact on tumor interactions with the immune system. Neoplasia, 2022, 28, 100796.	2.3	15
6	Rethinking the immunotherapy numbers game. , 2022, 10, e005107.		8
7	Education and Outreach in Physical Sciences in Oncology. Trends in Cancer, 2021, 7, 3-9.	3.8	4
8	Hypofractionated stereotactic re-irradiation with pembrolizumab and bevacizumab in patients with recurrent high-grade gliomas: results from a phase I study. Neuro-Oncology, 2021, 23, 677-686.	0.6	60
9	Heterogeneity analysis of MRI T2 maps for measurement of early tumor response to radiotherapy. NMR in Biomedicine, 2021, 34, e4454.	1.6	12
10	Are all models wrong?. Computational and Systems Oncology, 2021, 1, e1008.	1.1	20
11	Bayesian Framework to Augment Tumor Board Decision Making. JCO Clinical Cancer Informatics, 2021, 5, 508-517.	1.0	9
12	Predicting patient-specific response to adaptive therapy in metastatic castration-resistant prostate cancer using prostate-specific antigen dynamics. Neoplasia, 2021, 23, 851-858.	2.3	31
13	Forecasting Individual Patient Response to Radiation Therapy in Head and Neck Cancer With a Dynamic Carrying Capacity Model. International Journal of Radiation Oncology Biology Physics, 2021, 111, 693-704.	0.4	31
14	Intermittent radiotherapy as alternative treatment for recurrent high grade glioma: a modeling study based on longitudinal tumor measurements. Scientific Reports, 2021, 11, 20219.	1.6	17
15	Tumor-immune ecosystem dynamics define an individual Radiation Immune Score to predict pan-cancer radiocurability. Neoplasia, 2021, 23, 1110-1122.	2.3	15
16	Dynamics-Adapted Radiotherapy Dose (DARD) for Head and Neck Cancer Radiotherapy Dose Personalization. Journal of Personalized Medicine, 2021, 11, 1124.	1.1	16
17	A time-resolved experimental-mathematical model for predicting the response of glioma cells to single-dose radiation therapy. Integrative Biology (United Kingdom), 2021, 13, 167-183.	0.6	4
18	Mathematical oncology: A new frontier in cancer biology and clinical decision making. Physics of Life Reviews, 2021, , .	1.5	1

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19	A time-resolved experimental mathematical model for predicting the response of glioma cells to single-dose radiation therapy. <i>Integrative Biology (United Kingdom)</i> , 2021, 13, 167-183.	0.6	18
20	Parameter estimation using aggregate data. <i>Applied Mathematics Letters</i> , 2020, 100, 105999.	1.5	3
21	The importance of dead material within a tumour on the dynamics in response to radiotherapy. <i>Physics in Medicine and Biology</i> , 2020, 65, 015007.	1.6	17
22	High School Internship Program in Integrated Mathematical Oncology (HIP IMO): Five-Year Experience at Moffitt Cancer Center. <i>Bulletin of Mathematical Biology</i> , 2020, 82, 91.	0.9	4
23	A three phase model to investigate the effects of dead material on the growth of avascular tumours. <i>Mathematical Modelling of Natural Phenomena</i> , 2020, 15, 22.	0.9	15
24	Re: Numerical simulation of normal and cancer cells populations with fractional derivative under radiotherapy. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 188, 105417.	2.6	1
25	Tumor Volume Dynamics as an Early Biomarker for Patient-Specific Evolution of Resistance and Progression in Recurrent High-Grade Glioma. <i>Journal of Clinical Medicine</i> , 2020, 9, 2019.	1.0	18
26	Mathematical oncology and its application in non melanoma skin cancer – A primer for radiation oncology professionals. <i>Oral Oncology</i> , 2020, 103, 104473.	0.8	14
27	Prostate-specific antigen dynamics predict individual responses to intermittent androgen deprivation. <i>Nature Communications</i> , 2020, 11, 1750.	5.8	67
28	Mathematical Modeling of Oncolytic Virotherapy. <i>Methods in Molecular Biology</i> , 2020, 2058, 307-320.	0.4	7
29	Integrating Mathematical Modeling into the Roadmap for Personalized Adaptive Radiation Therapy. <i>Trends in Cancer</i> , 2019, 5, 467-474.	3.8	43
30	Mathematical Models of Cancer: When to Predict Novel Therapies, and When Not to. <i>Bulletin of Mathematical Biology</i> , 2019, 81, 3722-3731.	0.9	110
31	Modeling Variability in Radiosensitivity and Tumor Immune Contexture to Personalize Radiotherapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2019, 105, S123-S124.	0.4	1
32	Re: Simulation analysis for tumor radiotherapy based on three-component mathematical models. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 204-205.	0.8	1
33	The 2019 mathematical oncology roadmap. <i>Physical Biology</i> , 2019, 16, 041005.	0.8	147
34	Illuminating the Numbers: Integrating Mathematical Models to Optimize Photomedicine Dosimetry and Combination Therapies. <i>Frontiers in Physics</i> , 2019, 7, .	1.0	3
35	Proliferation saturation index in an adaptive Bayesian approach to predict patient-specific radiotherapy responses. <i>International Journal of Radiation Biology</i> , 2019, 95, 1421-1426.	1.0	24
36	Immunologic Consequences of Sequencing Cancer Radiotherapy and Surgery. <i>JCO Clinical Cancer Informatics</i> , 2019, 3, 1-16.	1.0	16

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37	Personalizing Gastric Cancer Screening With Predictive Modeling of Disease Progression Biomarkers. <i>Applied Immunohistochemistry and Molecular Morphology</i> , 2019, 27, 270-277.	0.6	10
38	Estimation of probability distributions of parameters using aggregate population data: analysis of a CAR T-cell cancer model. <i>Mathematical Biosciences and Engineering</i> , 2019, 16, 7299-7326.	1.0	5
39	Abstract 695: Using PSA dynamics to predict patient-specific responses to intermittent androgen deprivation. , 2019, , .		0
40	The Evolution of Tumour Composition During Fractionated Radiotherapy: Implications for Outcome. <i>Bulletin of Mathematical Biology</i> , 2018, 80, 1207-1235.	0.9	45
41	Predicting Patient-Specific Radiotherapy Protocols Based on Mathematical Model Choice for Proliferation Saturation Index. <i>Bulletin of Mathematical Biology</i> , 2018, 80, 1195-1206.	0.9	28
42	Toward early detection of <i>Helicobacter pylori</i> -associated gastric cancer. <i>Gastric Cancer</i> , 2018, 21, 196-203.	2.7	8
43	Mathematical Modeling of the Effects of Tumor Heterogeneity on the Efficiency of Radiation Treatment Schedule. <i>Bulletin of Mathematical Biology</i> , 2018, 80, 283-293.	0.9	16
44	The Optimal Radiation Dose to Induce Robust Systemic Anti-Tumor Immunity. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3377.	1.8	45
45	Temporally feathered intensity-modulated radiation therapy: A planning technique to reduce normal tissue toxicity. <i>Medical Physics</i> , 2018, 45, 3466-3474.	1.6	24
46	Report from the SWOG Radiation Oncology Committee: Research Objectives Workshop 2017. <i>Clinical Cancer Research</i> , 2018, 24, 3500-3509.	3.2	3
47	Immune interconnectivity of anatomically distant tumors as a potential mediator of systemic responses to local therapy. <i>Scientific Reports</i> , 2018, 8, 9474.	1.6	34
48	CD133 Expression as a <i>Helicobacter pylori</i> -independent Biomarker of Gastric Cancer Progression. <i>Anticancer Research</i> , 2018, 38, 4443-4448.	0.5	10
49	Abstract B014: Simulating prostate cancer stem cell dynamics to predict patient-specific sensitivity or resistance to intermittent androgen-deprivation therapy. , 2018, , .		0
50	Quantitative pretreatment CT volumetry: Association with oncologic outcomes in patients with T4a squamous carcinoma of the larynx. <i>Head and Neck</i> , 2017, 39, 1609-1620.	0.9	18
51	The future of personalised radiotherapy for head and neck cancer. <i>Lancet Oncology</i> , The, 2017, 18, e266-e273.	5.1	168
52	Different Sequences of Fractionated Low-Dose Proton and Single Iron-Radiation-Induced Divergent Biological Responses in the Heart. <i>Radiation Research</i> , 2017, 188, 191-203.	0.7	25
53	Mathematical Model of Head and Neck Cancer Response to Predict Fractionation Schema for Robust Responses During Radiation Therapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2017, 99, E656.	0.4	0
54	Evaluating the potential for maximized T cell redistribution entropy to improve abscopal responses to radiotherapy. <i>Convergent Science Physical Oncology</i> , 2017, 3, 034001.	2.6	8

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55	Neoadjuvant radiotherapy of early-stage breast cancer and long-term disease-free survival. <i>Breast Cancer Research</i> , 2017, 19, 75.	2.2	65
56	Fighting Cancer with Mathematics and Viruses. <i>Viruses</i> , 2017, 9, 239.	1.5	26
57	Abstract 4543: Local and systemic tumor-immune dynamics in metastatic cancer. , 2017, , .		0
58	Abstract 4544: Computational modeling to suggest patient-specific screening schedules for early detection of gastric cancer. , 2017, , .		0
59	Cancer Stem Cell Plasticity as Tumor Growth Promoter and Catalyst of Population Collapse. <i>Stem Cells International</i> , 2016, 2016, 1-12.	1.2	27
60	CT-based volumetric tumor growth velocity: A novel imaging prognostic indicator in oropharyngeal cancer patients receiving radiotherapy. <i>Oral Oncology</i> , 2016, 63, 16-22.	0.8	7
61	Agent-Based Modeling of Cancer Stem Cell Driven Solid Tumor Growth. <i>Methods in Molecular Biology</i> , 2016, 1516, 335-346.	0.4	38
62	Tu1324 CD133 Protein Expression As a Biomarker for Early Detection of Gastric Cancer. <i>Gastroenterology</i> , 2016, 150, S874-S875.	0.6	0
63	Proliferation Saturation Index Predicts Oropharyngeal Squamous Cell Cancer Gross Tumor Volume Reduction to Prospectively Identify Patients for Adaptive Radiation Therapy. <i>International Journal of Radiation Oncology Biology Physics</i> , 2016, 94, 903.	0.4	4
64	Stratifying prostate cancer patients by relative lymph node involvement: population-based and modeling-based study. <i>Cancer Medicine</i> , 2016, 5, 1850-1855.	1.3	3
65	From concept to clinic: Mathematically informed immunotherapy. <i>Current Problems in Cancer</i> , 2016, 40, 68-83.	1.0	36
66	Abscopal Benefits of Localized Radiotherapy Depend on Activated T-cell Trafficking and Distribution between Metastatic Lesions. <i>Cancer Research</i> , 2016, 76, 1009-1018.	0.4	103
67	Abstract 1523: Cross-disciplinary methods for personalizing screening modalities for early gastric cancer intervention. , 2016, , .		0
68	Abstract 4016: Personalizing the synergy of focal radiation and immunotherapy. , 2016, , .		0
69	A proliferation saturation index to predict radiation response and personalize radiotherapy fractionation. <i>Radiation Oncology</i> , 2015, 10, 159.	1.2	93
70	Therapeutic Implications from Sensitivity Analysis of Tumor Angiogenesis Models. <i>PLoS ONE</i> , 2015, 10, e0120007.	1.1	26
71	Particle Radiation-Induced Nontargeted Effects in Bone-Marrow-Derived Endothelial Progenitor Cells. <i>Stem Cells International</i> , 2015, 2015, 1-15.	1.2	7
72	Evolution and Phenotypic Selection of Cancer Stem Cells. <i>PLoS Computational Biology</i> , 2015, 11, e1004025.	1.5	69

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73	Mathematical Modeling of Acupuncture as Cancer Symptom Therapy: First Steps. JAMS Journal of Acupuncture and Meridian Studies, 2015, 8, 113-114.	0.3	1
74	Cancer stem cells: small subpopulation or evolving fraction?. Integrative Biology (United Kingdom), 2015, 7, 14-23.	0.6	56
75	Abstract A18: A systems biology approach to predict immunotherapy augmented abscopal effects. , 2015, , .		0
76	Abstract A19: Systems biology approach predicts the diagnostic value of T effector: T regulatory cell ratio in clinical response to combined radiation/immunotherapy of high-risk soft tissue sarcoma. , 2015, , .		0
77	Therapeutic Non-Toxic Doses of TNF Induce Significant Regression in TNFR2-p75 Knockdown Lewis Lung Carcinoma Tumor Implants. PLoS ONE, 2014, 9, e92373.	1.1	17
78	Cardiovascular Risks Associated with Low Dose Ionizing Particle Radiation. PLoS ONE, 2014, 9, e110269.	1.1	60
79	Biphasic modulation of cancer stem cell-driven solid tumour dynamics in response to reactivated replicative senescence. Cell Proliferation, 2014, 47, 267-276.	2.4	12
80	TNF-TNFR2/p75 Signaling Inhibits Early and Increases Delayed Nontargeted Effects in Bone Marrow-derived Endothelial Progenitor Cells. Journal of Biological Chemistry, 2014, 289, 14178-14193.	1.6	14
81	A Multicompartment Mathematical Model of Cancer Stem Cell-Driven Tumor Growth Dynamics. Bulletin of Mathematical Biology, 2014, 76, 1762-1782.	0.9	67
82	Mathematical Modeling of Tumor Growth and Treatment. Current Pharmaceutical Design, 2014, 20, 4934-4940.	0.9	145
83	A High-Performance Cellular Automaton Model of Tumor Growth with Dynamically Growing Domains. Applied Mathematics, 2014, 05, 144-152.	0.1	47
84	The Tumor Growth Paradox and Immune System-Mediated Selection for Cancer Stem Cells. Bulletin of Mathematical Biology, 2013, 75, 161-184.	0.9	85
85	Unveiling Stem Cell Kinetics: Prime Time for Integrating Experimental and Computational Models. Frontiers in Oncology, 2013, 3, 291.	1.3	1
86	Cancer Stem Cells: A Minor Cancer Subpopulation that Redefines Global Cancer Features. Frontiers in Oncology, 2013, 3, 76.	1.3	59
87	Formalizing an Integrative, Multidisciplinary Cancer Therapy Discovery Workflow. Cancer Research, 2013, 73, 6111-6117.	0.4	19
88	Acute and Fractionated Irradiation Differentially Modulate Glioma Stem Cell Division Kinetics. Cancer Research, 2013, 73, 1481-1490.	0.4	118
89	Simulating Cancer: Computational Models in Oncology. Frontiers in Oncology, 2013, 3, 233.	1.3	23
90	Cancer Stem Cells and Tumor Dormancy. Advances in Experimental Medicine and Biology, 2013, 734, 55-71.	0.8	19

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91	Asymmetric Cell Division. , 2013, , 47-48.		0
92	Symmetric Cell Division. , 2013, , 2034-2034.		0
93	Cancer Stem Cell Kinetics. , 2013, , 193-195.		0
94	Breaking the "harmony"™ of TNF- α signaling for cancer treatment. Oncogene, 2012, 31, 4117-4127.	2.6	56
95	The promoting role of a tumour-secreted chemorepellent in self-metastatic tumour progression. Mathematical Medicine and Biology, 2012, 29, 21-29.	0.8	13
96	Immunoediting: evidence of the multifaceted role of the immune system in self-metastatic tumor growth. Theoretical Biology and Medical Modelling, 2012, 9, 31.	2.1	33
97	Cell-Cell Interactions in Solid Tumors " the Role of Cancer Stem Cells. SIMAI Springer Series, 2012, , 191-204.	0.4	2
98	Abstract 4340: Increased cytokine and chemokine expression in U87MG glioblastoma cells after large clinically relevant single doses of ionizing radiation. , 2012, , .		2
99	Phenotypic transition maps of 3D breast acini obtained by imaging-guided agent-based modeling. Integrative Biology (United Kingdom), 2011, 3, 408.	0.6	41
100	Cancer stem cells in solid tumors: Is "evading apoptosis"™ a hallmark of cancer?. Progress in Biophysics and Molecular Biology, 2011, 106, 391-399.	1.4	57
101	Non-stem cancer cell kinetics modulate solid tumor progression. Theoretical Biology and Medical Modelling, 2011, 8, 48.	2.1	43
102	Abstract 4931: Cancer stem cells in solid tumors: Symmetric division, niche size, and invasive tumor morphology. , 2011, , .		0
103	Quantitative Modeling of Tumor Dynamics and Radiotherapy. Acta Biotheoretica, 2010, 58, 341-353.	0.7	70
104	Tumor morphological evolution: directed migration and gain and loss of the self-metastatic phenotype. Biology Direct, 2010, 5, 23.	1.9	27
105	The Importance of Spatial Distribution of Stemness and Proliferation State in Determining Tumor Radioresponse. Mathematical Modelling of Natural Phenomena, 2009, 4, 117-133.	0.9	64
106	Paradoxical Dependencies of Tumor Dormancy and Progression on Basic Cell Kinetics. Cancer Research, 2009, 69, 8814-8821.	0.4	175
107	Migration rules: tumours are conglomerates of self-metastases. British Journal of Cancer, 2009, 100, 1917-1925.	2.9	115
108	Reply: Inflammatory breast carcinoma as a model of accelerated self-metastatic expansion by intra-vascular growth. British Journal of Cancer, 2009, 101, 1030-1030.	2.9	0

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109	Dependence of Invadopodia Function on Collagen Fiber Spacing and Cross-Linking: Computational Modeling and Experimental Evidence. <i>Biophysical Journal</i> , 2008, 95, 2203-2218.	0.2	67
110	A mathematical model of breast cancer development, local treatment and recurrence. <i>Journal of Theoretical Biology</i> , 2007, 246, 245-259.	0.8	176
111	A model of breast carcinogenesis and recurrence after radiotherapy. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007, 7, 1121701-1121702.	0.2	6
112	Mathematical modelling of radiotherapy strategies for early breast cancer. <i>Journal of Theoretical Biology</i> , 2006, 241, 158-171.	0.8	95
113	Visualisation of the numerical solution of partial differential equation systems in three space dimensions and its importance for mathematical models in biology. <i>Mathematical Biosciences and Engineering</i> , 2006, 3, 571-582.	1.0	11
114	The accelerating quest for optimal radiation and immunotherapy combinations for local and systemic tumor control. <i>Therapeutic Radiology and Oncology</i> , 0, 2, 33-33.	0.2	8
115	Harnessing Tumor Immune Ecosystem Dynamics to Personalize Radiation Therapy. <i>SSRN Electronic Journal</i> , 0, , .	0.4	2