Thomas Friedrich

List of Publications by Year
in descending order

60 papers	2,156 citations	257450 24 h-index	233421 45 g-index
61 all docs	61 docs citations	61 times ranked	1509 citing authors

#	Article	IF	Citations
1	Comprehensive comparison of local effect model IV predictions with the particle irradiation data ensemble. Medical Physics, 2022, 49, 714-726.	3.0	10
2	A Predictive Biophysical Model of the Combined Action of Radiation Therapy and Immunotherapy of Cancer. International Journal of Radiation Oncology Biology Physics, 2022, 113, 872-884.	0.8	6
3	A doubleâ€strandâ€break model for the relative biological effectiveness of electrons based on ionization clustering. Medical Physics, 2022, 49, 5562-5575.	3.0	2
4	Modeling Radiation-Induced Neoplastic Cell Transformation In Vitro and Tumor Induction In Vivo with the Local Effect Model. Radiation Research, 2021, 195, 427-440.	1.5	5
5	Modeling Radioimmune Responseâ€"Current Status and Perspectives. Frontiers in Oncology, 2021, 11, 647272.	2.8	10
6	Update of the particle irradiation data ensemble (PIDE) for cell survival. Journal of Radiation Research, 2021, 62, 645-655.	1.6	21
7	Alpha-Particle Exposure Induces Mainly Unstable Complex Chromosome Aberrations which do not Contribute to Radiation-Associated Cytogenetic Risk. Radiation Research, 2021, 196, 561-573.	1.5	7
8	Biological Impact of Target Fragments on Proton Treatment Plans: An Analysis Based on the Current Cross-Section Data and a Full Mixed Field Approach. Cancers, 2021, 13, 4768.	3.7	5
9	Response of the Mimosa-28 pixel sensor to a wide range of ion species and energies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1017, 165807.	1.6	3
10	Proton RBE dependence on dose in the setting of hypofractionation. British Journal of Radiology, 2020, 93, 20190291.	2.2	13
11	Characterizing Radiation Effectiveness in Ion Beam Therapy Part I: Introduction and Biophysical Modeling of RBE Using the LEMIV. Frontiers in Physics, 2020, 8, .	2.1	12
12	Prediction of Cell Survival after Exposure to Mixed Radiation Fields with the Local Effect Model. Radiation Research, 2019, 193, 130.	1.5	11
13	Is the doseâ€averaged <scp>LET</scp> a reliable predictor for the relative biological effectiveness?. Medical Physics, 2019, 46, 1064-1074.	3.0	38
14	Modeling Radiation Effects of Ultrasoft X Rays on the Basis of Amorphous Track Structure. Radiation Research, 2018, 189, 32-43.	1.5	7
15	Comments on â€˜Comments on â€œModeling Cell Survival after Photon Irradiation Based on Double-Strand Break Clustering in Megabase Pair Chromatin Loopsâ€•by Thomas Friedrich, Marco Durante and Michael Scholz (Radiat Res 2012; 178:385â€"94)â€™. Radiation Research, 2018, 189, 549-549.	1.5	0
16	A comparison of mechanismâ€inspired models for particle relative biological effectiveness (RBE). Medical Physics, 2018, 45, e925-e952.	3.0	69
17	DNA damage interactions on both nanometer and micrometer scale determine overall cellular damage. Scientific Reports, 2018, 8, 16063.	3.3	33
18	Systematics of relative biological effectiveness measurements for proton radiation along the spread out Bragg peak: experimental validation of the local effect model. Physics in Medicine and Biology, 2017, 62, 890-908.	3.0	46

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19	Measuring Leukocyte Adhesion to (Primary) Endothelial Cells after Photon and Charged Particle Exposure with a Dedicated Laminar Flow Chamber. Frontiers in Immunology, 2017, 8, 627.	4.8	14
20	Response to the â€œLetter to the Editorâ€•by K. H. Chadwick on our Article â€œA Comparison of Kinetic Photon Cell Survival Modelsâ€• Radiation Research, 2016, 185, 440-441.	1.5	0
21	Impact of fractionation and number of fields on dose homogeneity for intra-fractionally moving lung tumors using scanned carbon ion treatment. Radiotherapy and Oncology, 2016, 118, 498-503.	0.6	9
22	Comparative Risk Predictions of Second Cancers After Carbon-Ion Therapy Versus Proton Therapy. International Journal of Radiation Oncology Biology Physics, 2016, 95, 279-286.	0.8	25
23	Kill-painting of hypoxic tumours in charged particle therapy. Scientific Reports, 2015, 5, 17016.	3.3	124
24	The link between cell-cycle dependent radiosensitivity and repair pathways: A model based on the local, sister-chromatid conformation dependent switch between NHEJ and HR. DNA Repair, 2015, 27, 28-39.	2.8	37
25	Assessment of potential advantages of relevant ions for particle therapy: A model based study. Medical Physics, 2015, 42, 1037-1047.	3.0	68
26	Comments on the paper â€œModelling of cell killing due to sparsely ionizing radiation in normoxic and hypoxic conditions and an extension to high LET radiationâ€•by A. Mairani et al., Int. J. Radiat. Biol. 89(10), 2013, 782â€“793. International Journal of Radiation Biology, 2015, 91, 127-128.	1.8	1
27	New Insight into Quantitative Modeling of DNA Double-Strand Break Rejoining. Radiation Research, 2015, 184, 280.	1.5	4
28	A Comparison of Kinetic Photon Cell Survival Models. Radiation Research, 2015, 184, 494-508.	1.5	8
29	Relative biological effectiveness of carbon ions for tumor control, acute skin damage and late radiation-induced fibrosis in a mouse model. Acta OncolÃ³gica, 2015, 54, 1623-1630.	1.8	37
30	Direct measurement of the 3-dimensional DNA lesion distribution induced by energetic charged particles in a mouse model tissue. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12396-12401.	7.1	20
31	Induction and Processing of the Radiation-Induced Gamma-H2AX Signal and Its Link to the Underlying Pattern of DSB: A Combined Experimental and Modelling Study. PLoS ONE, 2015, 10, e0129416.	2.5	30
32	Modeling Cell Survival after Irradiation with Ultrasoft X Rays using the Giant Loop Binary Lesion Model. Radiation Research, 2014, 181, 485-494.	1.5	13
33	RBE of ion beams in hypofractionated radiotherapy (SBRT). Physica Medica, 2014, 30, 588-591.	0.7	24
34	A Model of Photon Cell Killing Based on the Spatio-Temporal Clustering of DNA Damage in Higher Order Chromatin Structures. PLoS ONE, 2014, 9, e83923.	2.5	20
35	Systematic analysis of RBE and related quantities using a database of cell survival experiments with ion beam irradiation. Journal of Radiation Research, 2013, 54, 494-514.	1.6	208
36	Particle species dependence of cell survival RBE: Evident and not negligible. Acta OncolÃ³gica, 2013, 52, 589-603.	1.8	17

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37	Physical and biological factors determining the effective proton range. Medical Physics, 2013, 40, 111716.	3.0	51
38	The Fate of a Normal Human Cell Traversed by a Single Charged Particle. Scientific Reports, 2012, 2, 643.	3.3	21
39	Mapping of RBE-Weighted Doses Between HIMACâ€“ and LEMâ€“Based Treatment Planning Systems for Carbon IonÂTherapy. International Journal of Radiation Oncology Biology Physics, 2012, 84, 854-860.	0.8	59
40	Impact of enhancements in the local effect model (LEM) on the predicted RBE-weighted target dose distribution in carbon ion therapy. Physics in Medicine and Biology, 2012, 57, 7261-7274.	3.0	88
41	Modeling Cell Survival after Photon Irradiation Based on Double-Strand Break Clustering in Megabase Pair Chromatin Loops. Radiation Research, 2012, 178, 385-394.	1.5	81
42	Calculation of the biological effects of ion beams based on the microscopic spatial damage distribution pattern. International Journal of Radiation Biology, 2012, 88, 103-107.	1.8	163
43	Accuracy of RBE: experimental and theoretical considerations. Radiation and Environmental Biophysics, 2010, 49, 345-349.	1.4	17
44	Quantification of the Relative Biological Effectiveness for Ion Beam Radiotherapy: Direct Experimental Comparison of Proton and Carbon Ion Beams and a Novel Approach for Treatment Planning. International Journal of Radiation Oncology Biology Physics, 2010, 78, 1177-1183.	0.8	270
45	Quantum chaotic scattering in microwave resonators. Physical Review E, 2010, 81, 036205.	2.1	77
46	Induced Violation of Time-Reversal Invariance in the Regime of Weakly Overlapping Resonances. Physical Review Letters, 2009, 103, 064101.	7.8	44
47	Nonperiodic echoes from quantum mushroom-billiard hats. Physical Review E, 2009, 80, 036212.	2.1	8
48	Friedel oscillations in microwave billiards. Physical Review E, 2009, 80, 066210.	2.1	1
49	Prevalence of marginally unstable periodic orbits in chaotic billiards. Physical Review E, 2008, 77, 016205.	2.1	24
50	Spectral fluctuations of billiards with mixed dynamics: From time series to superstatistics. Physical Review E, 2008, 77, 046202.	2.1	35
51	Chaotic scattering in the regime of weakly overlapping resonances. Physical Review E, 2008, 78, 055204.	2.1	28
52	Properties of nodal domains in a pseudointegrable barrier billiard. Physical Review E, 2008, 78, 045201.	2.1	5
53	Rabi oscillations at exceptional points in microwave billiards. Physical Review E, 2007, 75, 027201.	2.1	61
54	Spectral properties of Bunimovich mushroom billiards. Physical Review E, 2007, 75, 035203.	2.1	23

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55	Induced Time-Reversal Symmetry Breaking Observed in Microwave Billiards. Physical Review Letters, 2007, 98, 074103.	7.8	34
56	First Experimental Observation of Superscars in a Pseudointegrable Barrier Billiard. Physical Review Letters, 2006, 97, 254102.	7.8	48
57	Nonperiodic echoes from mushroom billiard hats. Physical Review E, 2006, 74, 056207.	2.1	12
58	Distribution of resonance strengths in microwave billiards of mixed and chaotic dynamics. Physical Review E, 2005, 71, 046202.	2.1	25
59	First Experimental Evidence for Quantum Echoes in Scattering Systems. Physical Review Letters, 2004, 93, 134102.	7.8	24
60	Modelling secondary cancer risk ratios for proton vs. carbon ion beam therapy: A comparative study based on the Local Effect Model. Medical Physics, 0, , .	3.0	0