

Wook-Geun Shin

List of Publications by Year in descending order

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34
papers

738
citations

623188

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525886

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34
all docs

34
docs citations

34
times ranked

515
citing authors

#	ARTICLE	IF	CITATIONS
1	Geant4-DNA example applications for track structure simulations in liquid water: A report from the Geant4-DNA Project. <i>Medical Physics</i> , 2018, 45, e722.	1.6	265
2	Evaluation of early radiation DNA damage in a fractal cell nucleus model using Geant4-DNA. <i>Physica Medica</i> , 2019, 62, 152-157.	0.4	54
3	Fully integrated Monte Carlo simulation for evaluating radiation induced DNA damage and subsequent repair using Geant4-DNA. <i>Scientific Reports</i> , 2020, 10, 20788.	1.6	43
4	Review of the Geant4-DNA Simulation Toolkit for Radiobiological Applications at the Cellular and DNA Level. <i>Cancers</i> , 2022, 14, 35.	1.7	43
5	Evaluation of the influence of physical and chemical parameters on water radiolysis simulations under MeV electron irradiation using Geant4-DNA. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	34
6	Independent reaction times method in Geant4-DNA: Implementation and performance. <i>Medical Physics</i> , 2020, 47, 5919-5930.	1.6	27
7	Assessment of Radio-Induced Damage in Endothelial Cells Irradiated with 40 kVp, 220 kVp, and 4 MV X-rays by Means of Micro and Nanodosimetric Calculations. <i>International Journal of Molecular Sciences</i> , 2019, 20, 6204.	1.8	23
8	Development of a new Geant4-DNA electron elastic scattering model for liquid-phase water using the ELSEPA code. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	21
9	Geant4-DNA simulation of the pre-chemical stage of water radiolysis and its impact on initial radiochemical yields. <i>Physica Medica</i> , 2021, 88, 86-90.	0.4	20
10	Validation of energy-weighted algorithm for radiation portal monitor using plastic scintillator. <i>Applied Radiation and Isotopes</i> , 2016, 107, 160-164.	0.7	19
11	Independent dose verification system with Monte Carlo simulations using TOPAS for passive scattering proton therapy at the National Cancer Center in Korea. <i>Physics in Medicine and Biology</i> , 2017, 62, 7598-7616.	1.6	17
12	A Monte Carlo study of an energy-weighted algorithm for radionuclide analysis with a plastic scintillation detector. <i>Applied Radiation and Isotopes</i> , 2015, 101, 53-59.	0.7	16
13	TOPAS-nBio validation for simulating water radiolysis and DNA damage under low-LET irradiation. <i>Physics in Medicine and Biology</i> , 2021, 66, 175026.	1.6	16
14	Effective dose evaluation of NORM-added consumer products using Monte Carlo simulations and the ICRP computational human phantoms. <i>Applied Radiation and Isotopes</i> , 2016, 110, 230-235.	0.7	15
15	Electron transport in DNA bases: An extension of the Geant4-DNA Monte Carlo toolkit. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2021, 488, 70-82.	0.6	14
16	A Geant4-DNA Evaluation of Radiation-Induced DNA Damage on a Human Fibroblast. <i>Cancers</i> , 2021, 13, 4940.	1.7	13
17	Radioisotope identification using an energy-weighted algorithm with a proof-of-principle radiation portal monitor based on plastic scintillators. <i>Applied Radiation and Isotopes</i> , 2020, 156, 109010.	0.7	10
18	Development of integrated prompt gamma imaging and positron emission tomography system for <i>in vivo</i> 3-D dose verification: a Monte Carlo study. <i>Physics in Medicine and Biology</i> , 2020, 65, 105005.	1.6	10

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19	Assessment of DNA damage with an adapted independent reaction time approach implemented in Geant4â€DNA for the simulation of diffusionâ€controlled reactions between radioâ€induced reactive species and a chromatin fiber. <i>Medical Physics</i> , 2021, 48, 890-901.	1.6	10
20	Feasibility study for the assessment of the exposed dose with TENORM added in consumer products. <i>Radiation Protection Dosimetry</i> , 2015, 167, 255-259.	0.4	9
21	An effective dose assessment technique with NORM added consumer products using skin-point source on computational human phantom. <i>Applied Radiation and Isotopes</i> , 2016, 118, 56-61.	0.7	9
22	DNA double-strand breaks in cancer cells as a function of proton linear energy transfer and its variation in time. <i>International Journal of Radiation Biology</i> , 2021, 97, 1-12.	1.0	9
23	Development of an effective dose coefficient database using a computational human phantom and Monte Carlo simulations to evaluate exposure dose for the usage of NORM-added consumer products. <i>Applied Radiation and Isotopes</i> , 2017, 129, 42-48.	0.7	7
24	3D star shot analysis using MAGAT gel dosimeter for integrated imaging and radiation isocenter verification of MRâ€Linac system. <i>Journal of Applied Clinical Medical Physics</i> , 2022, 23, e13615.	0.8	7
25	Determining the energy spectrum of clinical linear accelerator using an optimized photon beam transmission protocol. <i>Medical Physics</i> , 2019, 46, 3285-3297.	1.6	6
26	Characteristic Evaluation of Exposed Dose with NORM added Consumer Product based on ICRP Reference Phantom. <i>Journal of Radiation Protection and Research</i> , 2014, 39, 159-167.	0.3	6
27	A Monte Carlo study of the relationship between the time structures of prompt gammas and the in-vivo radiation dose in proton therapy. <i>Journal of the Korean Physical Society</i> , 2015, 67, 248-253.	0.3	5
28	Development of a Geant4â€based independent patient dose validation system with an elaborate multileaf collimator simulation model. <i>Journal of Applied Clinical Medical Physics</i> , 2019, 20, 94-106.	0.8	5
29	Evaluation of the dosimetric effect of scattered protons in clinical practice in passive scattering proton therapy. <i>Journal of Applied Clinical Medical Physics</i> , 2021, 22, 104-118.	0.8	2
30	Optimization of target, moderator, and collimator in the accelerator-based boron neutron capture therapy system: A Monte Carlo study. <i>Nuclear Engineering and Technology</i> , 2021, 53, 1970-1978.	1.1	2
31	Development of advanced skin dose evaluation technique using a tetrahedral-mesh phantom in external beam radiotherapy: a Monte Carlo simulation study. <i>Physics in Medicine and Biology</i> , 2019, 64, 165005.	1.6	1
32	Abstract ID: 96 Feasibility study of in vivo dose verification by analyzing time-structure of the prompt gammas in cancer treatment using proton beam. <i>Physica Medica</i> , 2017, 42, 21.	0.4	0
33	Feasibility study for radionuclide identification using multi-array plastic scintillator and energy weighted algorithm of radiation portal monitors: a Monte Carlo study. <i>Journal of Instrumentation</i> , 2019, 14, P12015-P12015.	0.5	0
34	Calculation of Beam Quality Correction Factor for Relative Positions of SOBP and Ionization Chamber Using Monte Carlo Simulations. <i>New Physics: Sae Mulli</i> , 2021, 71, 885-889.	0.0	0