Yann Perrot

List of Publications by Year in descending order

33 papers	1,943 citations	516710 16 h-index	434195 31 g-index
33 all docs	33 docs citations	33 times ranked	1736 citing authors

#	Article	IF	Citations
1	GATE V6: a major enhancement of the GATE simulation platform enabling modelling of CT and radiotherapy. Physics in Medicine and Biology, 2011, 56, 881-901.	3.0	640
2	Track structure modeling in liquid water: A review of the Geant4-DNA very low energy extension of the Geant4 Monte Carlo simulation toolkit. Physica Medica, 2015, 31, 861-874.	0.7	373
3	A review of the use and potential of the GATE Monte Carlo simulation code for radiation therapy and dosimetry applications. Medical Physics, 2014, 41, 064301.	3.0	332
4	Report on G4â€Med, a Geant4 benchmarking system for medical physics applications developed by the Geant4 Medical Simulation Benchmarking Group. Medical Physics, 2021, 48, 19-56.	3.0	92
5	Comparison of GATE/GEANT4 with EGSnrc and MCNP for electron dose calculations at energies between 15 keV and 20 MeV. Physics in Medicine and Biology, 2011, 56, 811-827.	3.0	60
6	Review of the Geant4-DNA Simulation Toolkit for Radiobiological Applications at the Cellular and DNA Level. Cancers, 2022, 14, 35.	3.7	43
7	Dose point kernels in liquid water: An intra-comparison between GEANT4-DNA and a variety of Monte Carlo codes. Applied Radiation and Isotopes, 2014, 83, 137-141.	1.5	42
8	Simulating radial dose of ion tracks in liquid water simulated with Geant4-DNA: A comparative study. Nuclear Instruments & Methods in Physics Research B, 2014, 333, 92-98.	1.4	38
9	Evaluation of the influence of physical and chemical parameters on water radiolysis simulations under MeV electron irradiation using Geant4-DNA. Journal of Applied Physics, 2019, 126, .	2.5	34
10	PDB4DNA: Implementation of DNA geometry from the Protein Data Bank (PDB) description for Geant4-DNA Monte-Carlo simulations. Computer Physics Communications, 2015, 192, 282-288.	7.5	33
11	Independent reaction times method in Geant4â€DNA: Implementation and performance. Medical Physics, 2020, 47, 5919-5930.	3.0	27
12	Comparison of Geant4-DNA simulation of S-values with other Monte Carlo codes. Nuclear Instruments & Methods in Physics Research B, 2014, 319, 87-94.	1.4	26
13	Radiation Enhancer Effect of Platinum Nanoparticles in Breast Cancer Cell Lines: In Vitro and In Silico Analyses. International Journal of Molecular Sciences, 2021, 22, 4436.	4.1	25
14	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. International Journal of Molecular Sciences, 2019, 20, 6204.	4.1	23
15	Geant4-DNA simulation of the pre-chemical stage of water radiolysis and its impact on initial radiochemical yields. Physica Medica, 2021, 88, 86-90.	0.7	20
16	Internal dosimetry through GATE simulations of preclinical radiotherapy using a melanin-targeting ligand. Physics in Medicine and Biology, 2014, 59, 2183-2198.	3.0	19
17	TOPAS-nBio validation for simulating water radiolysis and DNA damage under low-LET irradiation. Physics in Medicine and Biology, 2021, 66, 175026.	3.0	16
18	[123I]ICF01012 melanoma imaging and [131I]ICF01012 dosimetry allow adapted internal targeted radiotherapy in preclinical melanoma models. European Journal of Dermatology, 2015, 25, 29-35.	0.6	15

#	Article	IF	Citations
19	Theranostic Approach for Metastatic Pigmented Melanoma Using ICF15002, a Multimodal Radiotracer for Both PET Imaging and Targeted Radionuclide Therapy. Neoplasia, 2017, 19, 17-27.	5.3	14
20	A Geant4-DNA Evaluation of Radiation-Induced DNA Damage on a Human Fibroblast. Cancers, 2021, 13, 4940.	3.7	13
21	Coupling of Geant4-DNA physics models into the GATE Monte Carlo platform: Evaluation of radiation-induced damage for clinical and preclinical radiation therapy beams. Nuclear Instruments & Methods in Physics Research B, 2015, 353, 46-55.	1.4	10
22	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. Medical Physics, 2021, 48, 890-901.	3.0	10
23	Secondary neutron dose contribution from pencil beam scanning, scattered and spatially fractionated proton therapy. Physics in Medicine and Biology, 2021, 66, 225010.	3.0	8
24	Radiation dosimetry of [131 I]ICF01012 in rabbits: Application to targeted radionuclide therapy for human melanoma treatment. Medical Physics, 2018, 45, 5251-5262.	3.0	7
25	Nanodosimetric Calculations of Radiation-Induced DNA Damage in a New Nucleus Geometrical Model Based on the Isochore Theory. International Journal of Molecular Sciences, 2022, 23, 3770.	4.1	7
26	Intercomparison of micro- and nanodosimetry Monte Carlo simulations: An approach to assess the influence of different cross-sections for low-energy electrons on the dispersion of results. Radiation Measurements, 2022, 150, 106675.	1.4	5
27	DNA damage modeled with Geant4-DNA: effects of plasmid DNA conformation and experimental conditions. Physics in Medicine and Biology, 2021, 66, 245017.	3.0	5
28	Performance Evaluation of Multithreaded Geant4 Simulations Using an Intel Xeon Phi Cluster. Scientific Programming, 2015, 2015, 1-10.	0.7	2
29	Modeling early radiation DNA damage occurring during [¹⁷⁷Lu]Lu-DOTA-[Tyr³]octreotate radionuclide therapy. Journal of Nuclear Medicine, 2021, , jnumed.121.262610.	5.0	2
30	VALIDATION OF ELECTRON RADIOTHERAPY BEAMS USING GATE/GEANT4 IN VOXELISED PHANTOMS. Radiotherapy and Oncology, 2009, 92, S71.	0.6	1
31	SU-E-T-565: RAdiation Resistance of Cancer CElls Using GEANT4 DNA: RACE. Medical Physics, 2014, 41, 357-358.	3.0	1
32	Intensity-modulated arc therapy using the gate Monte Carlo simulation platform in a grid environment. Physica Medica, 2013, 29, e24.	0.7	0
33	SU-E-T-708: Validation of the New GATE 6.0 Monte Carlo Platform for Radiation Therapy. Investigations on Simulation Parameters. Medical Physics, 2011, 38, 3653-3653.	3.0	0