# Emanuele Scifoni

List of Publications by Year
in descending order

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|---|---|---|---|
| 74<br>papers | 1,926<br>citations | 257101<br>24<br>h-index | 264894<br>42<br>g-index |
| 74<br>all docs | 74<br>docs citations | 74<br>times ranked | 1846<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | FLASH radiotherapy with carbon ion beams. Medical Physics, 2022, 49, 1974-1992. | 1.6 | 43 |
| 2 | Including Volume Effects in Biological Treatment Plan Optimization for Carbon Ion Therapy: Generalized Equivalent Uniform Dose-Based Objective in TRiP98. Frontiers in Oncology, 2022, 12, 826414. | 1.3 | 2 |
| 3 | Quantification of biological range uncertainties in patients treated at the Krakow proton therapy centre. Radiation Oncology, 2022, 17, 50. | 1.2 | 1 |
| 4 | Charge identification of fragments with the emulsion spectrometer of the FOOT experiment. Open Physics, 2021, 19, 383-394. | 0.8 | 6 |
| 5 | Hypoxia Transcriptomic Modifications Induced by Proton Irradiation in U87 Glioblastoma Multiforme Cell Line. Journal of Personalized Medicine, 2021, 11, 308. | 1.1 | 10 |
| 6 | Enhancing the understanding of fragmentation processes in hadrontherapy and radioprotection in space with the FOOT experiment. Physica Scripta, 2021, 96, 114013. | 1.2 | 1 |
| 7 | May oxygen depletion explain the FLASH effect? A chemical track structure analysis. Radiotherapy and Oncology, 2021, 162, 68-75. | 0.3 | 62 |
| 8 | Interaction of therapeutic <sup>12</sup>C ions with bone-like targets: physical characterization and dosimetric effect at material interfaces. Physics in Medicine and Biology, 2021, 66, 185003. | 1.6 | 1 |
| 9 | Response to â€œComment on: May oxygen depletion explain the FLASH effect? A chemical track structure analysisâ€• Radiotherapy and Oncology, 2021, 163, 237-239. | 0.3 | 3 |
| 10 | 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. | 1.7 | 5 |
| 11 | Study of relationship between dose, LET and the risk of brain necrosis after proton therapy for skull base tumors. Radiotherapy and Oncology, 2021, 163, 143-149. | 0.3 | 16 |
| 12 | Commissioning of GPUâ€“Accelerated Monte Carlo Code FRED for Clinical Applications in Proton Therapy. Frontiers in Physics, 2021, 8, . | 1.0 | 25 |
| 13 | Experimental Assessment of the Electromagnetic Background Noise in the Trento Proton Therapy Center. , 2021, , . | | 0 |
| 14 | Cell Survival Computation via the Generalized Stochastic Microdosimetric Model (GSM2); Part I: The Theoretical Framework. Radiation Research, 2021, 197, . | 0.7 | 7 |
| 15 | Clinical implementation in proton therapy of multi-field optimization by a hybrid method combining conventional PTV with robust optimization. Physics in Medicine and Biology, 2020, 65, 045002. | 1.6 | 14 |
| 16 | Modelling the risk of radiation induced alopecia in brain tumor patients treated with scanned proton beams. Radiotherapy and Oncology, 2020, 144, 127-134. | 0.3 | 23 |
| 17 | Proton pencil beam scanning reduces secondary cancer risk in breast cancer patients with internal mammary chain involvement compared to photon radiotherapy. Radiation Oncology, 2020, 15, 228. | 1.2 | 4 |
| 18 | Can We Assess Early DNA Damage at the Molecular Scale by Radiation Track Structure Simulations? A Tetranucleosome Scenario in Geant4-DNA. Frontiers in Physics, 2020, 8, . | 1.0 | 3 |

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|---|---|---|---|
| 19 | FLUKA simulation of target fragmentation in proton therapy. Physica Medica, 2020, 80, 342-346. | 0.4 | 8 |
| 20 | Microdosimetric measurements as a tool to assess potential in-field and out-of-field toxicity regions in proton therapy. Physics in Medicine and Biology, 2020, 65, 245024. | 1.6 | 14 |
| 21 | Systematic quantification of nanoscopic dose enhancement of gold nanoparticles in ion beams. Physics in Medicine and Biology, 2020, 65, 075008. | 1.6 | 8 |
| 22 | Impact of Target Oxygenation on the Chemical Track Evolution of Ion and Electron Radiation. International Journal of Molecular Sciences, 2020, 21, 424. | 1.8 | 44 |
| 23 | Evaluation of proton beam radiation-induced skin injury in a murine model using a clinical SOBP. PLoS ONE, 2020, 15, e0233258. | 1.1 | 6 |
| 24 | Transversal dose profile reconstruction for clinical proton beams: A detectors inter-comparison. Physica Medica, 2020, 70, 133-138. | 0.4 | 5 |
| 25 | Study on Tl-204 simultaneous electron and photon emission spectra and their interaction with gold absorbers. Experimental results and Monte Carlo simulations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 927, 435-442. | 0.7 | 1 |
| 26 | Backscattered electron emission after proton impact on gold nanoparticles with and without polymer shell coating. Physics in Medicine and Biology, 2019, 64, 125007. | 1.6 | 7 |
| 27 | Spatial Dose Patterns Associated With Radiation Pneumonitis in a Randomized Trial Comparing Intensity-Modulated Photon Therapy With Passive Scattering Proton Therapy for Locally Advanced Non-Small Cell Lung Cancer. International Journal of Radiation Oncology Biology Physics, 2019, 104, 1124-1132. | 0.4 | 37 |
| 28 | A new facility for proton radiobiology at the Trento proton therapy centre: Design and implementation. Physica Medica, 2019, 58, 99-106. | 0.4 | 25 |
| 29 | Development and characterization of aî”E-TOF detector prototype for the FOOT experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 916, 116-124. | 0.7 | 8 |
| 30 | TRAX-CHEM: A pre-chemical and chemical stage extension of the particle track structure code TRAX in water targets. Chemical Physics Letters, 2018, 698, 11-18. | 1.2 | 36 |
| 31 | Modeling Radiation Effects of Ultrasoft X Rays on the Basis of Amorphous Track Structure. Radiation Research, 2018, 189, 32-43. | 0.7 | 7 |
| 32 | Characterizing the Potency and Impact of Carbon Ion Therapy in a Primary Mouse Model of Soft Tissue Sarcoma. Molecular Cancer Therapeutics, 2018, 17, 858-868. | 1.9 | 25 |
| 33 | Fragmentation of 120 and 200 MeV u<sup>â^'1</sup><sup>4</sup>He ions in water and PMMA targets. Physics in Medicine and Biology, 2017, 62, 1310-1326. | 1.6 | 29 |
| 34 | Backscattered electron emission after proton impact on carbon and gold films: Experiments and simulations. Nuclear Instruments & Methods in Physics Research B, 2017, 401, 8-17. | 0.6 | 10 |
| 35 | New Research in Ionizing Radiation andÂNanoparticles: The ARGENT Project. , 2017, , 379-434. | | 1 |
| 36 | Oxygen beams for therapy: advanced biological treatment planning and experimental verification. Physics in Medicine and Biology, 2017, 62, 7798-7813. | 1.6 | 59 |

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|---|---|---|---|
| 37 | Proton beam characterization in the experimental room of the Trento Proton Therapy facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 869, 15-20. | 0.7 | 49 |
| 38 | Particle therapy and nanomedicine: state of art and research perspectives. Cancer Nanotechnology, 2017, 8, 9. | 1.9 | 60 |
| 39 | The FOOT (Fragmentation Of Target) Experiment. , 2017, , . | | 3 |
| 40 | Response to â€œComment on â€˜Helium ions for radiotherapy? Physical and biological verifications of a novel treatment modalityâ€™ â€•[Med. Phys. 43, 1995â€“2004 (2016)]. Medical Physics, 2016, 43, 5262-5262. | 1.6 | 0 |
| 41 | Hibernation for space travel: Impact on radioprotection. Life Sciences in Space Research, 2016, 11, 1-9. | 1.2 | 57 |
| 42 | Helium ions for radiotherapy? Physical and biological verifications of a novel treatment modality. Medical Physics, 2016, 43, 1995-2004. | 1.6 | 87 |
| 43 | Kill-painting of hypoxic tumours in charged particle therapy. Scientific Reports, 2015, 5, 17016. | 1.6 | 124 |
| 44 | Radiation biophysical aspects of charged particles: From the nanoscale to therapy. Modern Physics Letters A, 2015, 30, 1540019. | 0.5 | 11 |
| 45 | TLD efficiency calculations for heavy ions: an analytical approach. European Physical Journal D, 2015, 69, 1. | 0.6 | 6 |
| 46 | New Ions for Therapy. International Journal of Particle Therapy, 2015, 2, 428-438. | 0.9 | 91 |
| 47 | Overview of recent advances in treatment planning for ion beam radiotherapy. European Physical Journal D, 2014, 68, 1. | 0.6 | 29 |
| 48 | LET-painting increases tumour control probability in hypoxic tumours. Acta OncolÃ³gica, 2014, 53, 25-32. | 0.8 | 112 |
| 49 | Dosimetric effects of residual uncertainties in carbon ion treatment of head chordoma. Radiotherapy and Oncology, 2014, 113, 66-71. | 0.3 | 18 |
| 50 | Simulations of dose enhancement for heavy atom nanoparticles irradiated by protons. Physics in Medicine and Biology, 2014, 59, 1441-1458. | 1.6 | 95 |
| 51 | Low-energy electron transport in non-uniform media. Nuclear Instruments & Methods in Physics Research B, 2014, 320, 75-82. | 0.6 | 8 |
| 52 | Advancing the modeling in particle therapy: From track structure to treatment planning. Applied Radiation and Isotopes, 2014, 83, 171-176. | 0.7 | 13 |
| 53 | Including oxygen enhancement ratio in ion beam treatment planning: model implementation and experimental verification. Physics in Medicine and Biology, 2013, 58, 3871-3895. | 1.6 | 73 |
| 54 | Ion beams in radiotherapy - from tracks to treatment planning. Journal of Physics: Conference Series, 2012, 373, 012017. | 0.3 | 13 |

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| 55 | Collisional excitation of doubly deuterated ammonia ND2H by para-H2. Monthly Notices of the Royal Astronomical Society, 2011, 413, 509-513. | 1.6 | 16 |
| 56 | Radial dose distribution from carbon ion incident on liquid water. European Physical Journal D, 2010, 60, 115-119. | 0.6 | 17 |
| 57 | Molecular level assessments of radiation biodamage. European Physical Journal D, 2010, 60, 1-10. | 0.6 | 57 |
| 58 | Spectra of secondary electrons generated in water by energetic ions. Physical Review E, 2010, 81, 021903. | 0.8 | 50 |
| 59 | Ion-beam cancer therapy: News about a multiscale approach to radiation damage. Mutation Research - Reviews in Mutation Research, 2010, 704, 206-212. | 2.4 | 20 |
| 60 | Physics of ion beam cancer therapy: A multiscale approach. Physical Review E, 2009, 79, 011909. | 0.8 | 124 |
| 61 | On the robustness of the ammonia thermometer. Monthly Notices of the Royal Astronomical Society, 2009, 399, 425-431. | 1.6 | 77 |
| 62 | A quantum modeling of the chemistry of LiH+ with He from ab initio calculations: Ionic reactions in He nanodroplets. International Journal of Mass Spectrometry, 2009, 280, 57-64. | 0.7 | 4 |
| 63 | Ion-induced electron production in tissue-like media and DNA damage mechanisms. European Physical Journal D, 2009, 51, 63-71. | 0.6 | 58 |
| 64 | A Multiscale Approach to the Physics of Radiation Damage. , 2009, , . | | 0 |
| 65 | Stopping Power and Secondary Electrons in Ion Beam Induced Damage. , 2009, , . | | 2 |
| 66 | Ion-beam therapy: from electron production in tissue like media to DNA damage estimations. , 2008, , . | | 5 |
| 67 | A multi-scale approach to the physics of ion beam cancer therapy. , 2008, , . | | 0 |
| 68 | Energies and spatial features for the rotationless bound states of He3+4(Î£g+2): A cationic core from helium cluster ionization. Journal of Chemical Physics, 2006, 125, 164304. | 1.2 | 5 |
| 69 | Ionic reactions in He nanodroplets: The [LiHHe]+ complex and its possible energy pathways into products fromab initiocalculations. Journal of Chemical Physics, 2005, 122, 224312. | 1.2 | 10 |
| 70 | Charged cores in ionized $mathsf{{^{4}He}}$ clusters II: Ab initio calculations for the $mathsf{{He_{2}^{ + } + He}}$ system and Many-Body fitting of the computed points. European Physical Journal D, 2004, 30, 353-362. | 0.6 | 14 |
| 71 | Charged cores in ionized $mathsf{{^{4}He}}$ clusters III: A quantum modeling for the collisional relaxation dynamics. European Physical Journal D, 2004, 30, 363-368. | 0.6 | 19 |
| 72 | Dynamical ionization of the [sup 4]He trimer: A time-dependent modeling of its fragmentation. Journal of Chemical Physics, 2003, 118, 2606. | 1.2 | 5 |

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| 73 | Rotational Quenching in Ionic Systems at Ultracold Temperatures. Physical Review Letters, 2002, 89, 283201. | 2.9 | 24 |
| 74 | Charged cores in ionized He clusters. European Physical Journal D, 2002, 21, 323-333. | 0.6 | 14 |