

Davide Mancusi

List of Publications by Year in descending order

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101
papers

3,960
citations

331670

21
h-index

118850

62
g-index

103
all docs

103
docs citations

103
times ranked

8498
citing authors

#	ARTICLE	IF	CITATIONS
1	Monte Carlo simulations of the SPERT III E-core transient experiments. European Physical Journal Plus, 2022, 137, 1.	2.6	3
2	Space and time correlations for diffusion models with prompt and delayed birth-and-death events. Physical Review E, 2022, 105, .	2.1	2
3	TOWARDS ZERO-VARIANCE SCHEMES FOR KINETIC MONTE-CARLO SIMULATIONS. EPJ Web of Conferences, 2021, 247, 04010.	0.3	1
4	MULTI-PHYSICS TRANSIENT SIMULATIONS WITH TRIPOLI-4®. EPJ Web of Conferences, 2021, 247, 07019.	0.3	3
5	Comparison of variance-reduction techniques for gamma dose rate determination. European Physical Journal Plus, 2021, 136, 1.	2.6	0
6	Comparison of variance reduction methods in shielding problems with source multiplication. European Physical Journal Plus, 2021, 136, 1.	2.6	1
7	A Study of the Effects and Benefits of Custom-Precision Mathematical Libraries for HPC Codes. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 1467-1478.	4.6	2
8	Exact weight cancellation in Monte Carlo eigenvalue transport problems. Physical Review E, 2021, 104, 015306.	2.1	2
9	Review of Monte Carlo methods for particle transport in continuously-varying media. European Physical Journal Plus, 2020, 135, 1.	2.6	7
10	Zero-variance schemes for kinetic Monte Carlo simulations. European Physical Journal Plus, 2020, 135, 1.	2.6	4
11	New features of the INCL model for spallation reactions. Journal of Physics: Conference Series, 2020, 1643, 012080.	0.4	0
12	Production of Hypernuclei and Strange Particles in Spallation Reactions at a Few GeV Using an Intranuclear Cascade Approach. Springer Proceedings in Physics, 2020, , 959-963.	0.2	0
13	Cauchy formulas for linear transport in random media. Europhysics Letters, 2019, 127, 20006.	2.0	7
14	Production of strange particles and hypernuclei in nuclear reactions at a few GeV. New capabilities in the INCL intranuclear cascade model. AIP Conference Proceedings, 2019, , .	0.4	0
15	Study of the reaction mechanisms of $^{136}\text{Xe} + p$ and $^{136}\text{Xe} + ^{12}\text{C}$ at 1 A GeV with inverse kinematics and large-acceptance detectors. European Physical Journal A, 2019, 55, 1.	2.5	3
16	Accelerating Monte Carlo Shielding Calculations in TRIPOLI-4 with a Deterministic Adjoint Flux. Nuclear Science and Engineering, 2019, 193, 966-981.	1.1	3
17	Chaos in eigenvalue search methods. Annals of Nuclear Energy, 2018, 112, 354-363.	1.8	6
18	Nuclide production in spallation reactions: How useful are the simulations?. Journal of Physics: Conference Series, 2018, 1046, 012001.	0.4	0

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19	Excitation of baryon resonances in charge-exchange reactions of heavy nuclei. Journal of Physics: Conference Series, 2018, 1024, 012002.	0.4	0
20	Parametrization of cross sections for elementary hadronic collisions involving strange particles. European Physical Journal Plus, 2018, 133, 1.	2.6	13
21	η and ω mesons as new degrees of freedom in the intranuclear cascade model INCL. European Physical Journal Plus, 2018, 133, 1.	2.6	11
22	Advances in the Treatment of the Electromagnetic Cascade in the TRIPOLI-4 Monte Carlo Code. IEEE Transactions on Nuclear Science, 2018, 65, 2372-2379.	2.0	1
23	New kinetic simulation capabilities for Tripoli-4 [®] : Methods and applications. Annals of Nuclear Energy, 2018, 120, 74-88.	1.8	33
24	HEIR: A High-Energy Intra-Nuclear Cascade Li ⁷ -based Residual nuclear data library for simulation with FISPACT-II. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 908, 291-297.	1.6	4
25	New perturbation and sensitivity capabilities in Tripoli-4 [®] . Annals of Nuclear Energy, 2018, 121, 335-349.	1.8	12
26	Validation of Geant4 fragmentation for Heavy Ion Therapy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 869, 68-75.	1.6	34
27	Improvement of one-nucleon removal and total reaction cross sections in the Li ⁷ -intranuclear-cascade model using Hartree-Fock-Bogoliubov calculations. Physical Review C, 2017, 96, .	2.9	24
28	On the role of secondary pions in spallation targets. European Physical Journal A, 2017, 53, 1.	2.5	13
29	Recent developments in the TRIPOLI-4 [®] Monte-Carlo code for shielding and radiation protection applications. EPJ Web of Conferences, 2017, 153, 06007.	0.3	2
30	Monte Carlo calculations of nucleon-induced fission in the GeV energy range. EPJ Web of Conferences, 2017, 146, 04049.	0.3	0
31	Rigorous-two-Steps scheme of TRIPOLI-4 [®] Monte Carlo code validation for shutdown dose rate calculation. EPJ Web of Conferences, 2017, 153, 02008.	0.3	4
32	Progress on the TRIPOLI-4 [®] -Geant4 coupling. EPJ Web of Conferences, 2017, 153, 06002.	0.3	1
33	On the role of secondary pions in spallation targets. EPJ Web of Conferences, 2017, 146, 12018.	0.3	0
34	Nuclear astrophysics with radioactive ions at FAIR. Journal of Physics: Conference Series, 2016, 665, 012044.	0.4	9
35	Recent developments in Geant4. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 835, 186-225.	1.6	2,327
36	Online monitoring of the Osiris reactor with the Nucifer neutrino detector. Physical Review D, 2016, 93, .	4.7	58

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37	Geant4 simulation of the n_TOF-EAR2 neutron beam: Characteristics and prospects. European Physical Journal A, 2016, 52, 1.	2.5	15
38	Processes involving few degrees of freedom in the frame of Intranuclear Cascade approaches. European Physical Journal Plus, 2016, 131, 1.	2.6	5
39	Excitation functions of the natCr(p,x)44Ti, 56Fe(p,x)44Ti, natNi(p,x)44Ti and 93Nb(p,x)44Ti reactions at energies up to 2.6 GeV. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 821, 136-141.	1.6	4
40	Shell structure and few-nucleon removal in intranuclear cascade. Journal of Physics: Conference Series, 2015, 580, 012024.	0.4	0
41	GEANT4 simulations of the n_TOF spallation source and their benchmarking. European Physical Journal A, 2015, 51, 1.	2.5	24
42	Improving the description of proton-induced one-nucleon removal in intranuclear-cascade models. Physical Review C, 2015, 91, .	2.9	33
43	Assessment of nuclear-reaction codes for proton-induced reactions on light nuclei below 250 MeV. European Physical Journal Plus, 2015, 130, 1.	2.6	7
44	Fission induced by nucleons at intermediate energies. Nuclear Physics A, 2015, 933, 43-67.	1.5	18
45	The Li ^Å ge Intranuclear Cascade model â€œ Towards a unified description of nuclear reactions induced by nucleons and light ions from a few MeV to a few GeV. EPJ Web of Conferences, 2014, 66, 03021.	0.3	2
46	Extension of the Li ^Å ge intranuclear-cascade model to reactions induced by light nuclei. Physical Review C, 2014, 90, .	2.9	113
47	Proton-induced fission of ^{181}Ta at high excitation energies. Physical Review C, 2014, 89, .	2.9	37
48	New approach to description of spectra at energies below 50MeV in Monte Carlo simulation by intra-nuclear cascade code with Distorted Wave Born Approximation. Nuclear Instruments & Methods in Physics Research B, 2014, 333, 27-41.	1.4	24
49	Fission at intermediate neutron energies. Journal of Physics: Conference Series, 2014, 533, 012024.	0.4	1
50	Fission at intermediate nucleon energies. Journal of Physics: Conference Series, 2014, 527, 012007.	0.4	0
51	New C++ version of the Li ^Å ge intranuclear cascade model in Geant4. , 2014, , .		2
52	New capabilities of the Li ^Å ge intranuclear-cascade model for particle-transport codes. , 2014, , .		0
53	Production of some particular isotopes in spallation targets calculated with INCL4.6-ABLA07 implemented into MCNPX. , 2014, , .		0
54	QCD analysis of Lambda hyperon production in DIS target-fragmentation region. European Physical Journal C, 2013, 73, 1.	3.9	7

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55	New potentialities of the Li ^A ge intranuclear cascade model for reactions induced by nucleons and light charged particles. <i>Physical Review C</i> , 2013, 87, .	2.9	378
56	Comparisons of hadrontherapy-relevant data to nuclear interaction codes in the Geant4 toolkit. <i>Journal of Physics: Conference Series</i> , 2013, 420, 012163.	0.4	9
57	Modeling astatine production in liquid lead-bismuth spallation targets. <i>European Physical Journal A</i> , 2013, 49, 1.	2.5	14
58	Evaporation-cost dependence in heavy-ion fragmentation. <i>Physical Review C</i> , 2013, 88, .	2.9	22
59	Simultaneous fitting of statistical-model parameters to symmetric and asymmetric fission cross sections. <i>Journal of Physics: Conference Series</i> , 2013, 420, 012130.	0.4	1
60	Extension of the Li ^A ge Intra Nuclear Cascade model to light ion-induced collisions for medical and space applications. <i>Journal of Physics: Conference Series</i> , 2013, 420, 012065.	0.4	20
61	Gamma-decay of the GDR in the GEMINI++ Code. <i>Acta Physica Polonica B</i> , 2013, 44, 611.	0.8	8
62	The elusiveness of multifragmentation footprints in 1-GeV proton-nucleus reactions. <i>EPJ Web of Conferences</i> , 2012, 31, 00037.	0.3	1
63	30 Years of Strong Interactions: a Three-Day Meeting in Honour of Joseph Cugnon and Hans-Jürgen Pirner. <i>Few-Body Systems</i> , 2012, 53, 1-2.	1.5	0
64	Constraining statistical-model parameters using fusion and spallation reactions. <i>EPJ Web of Conferences</i> , 2011, 17, 10003.	0.3	4
65	Production of heavy clusters (up to A=10) by coalescence during the intranuclear cascade phase of spallation reactions. <i>Journal of Physics: Conference Series</i> , 2011, 312, 082019.	0.4	3
66	Evaluation of dose rate reduction in a spacecraft compartment due to additional water shield. <i>Cosmic Research</i> , 2011, 49, 319-324.	0.6	12
67	Measurement and simulation of the cross sections for nuclide production in ⁵⁶ Fe and natCr targets irradiated with 0.04- to 2.6-GeV protons. <i>Physics of Atomic Nuclei</i> , 2011, 74, 523-536.	0.4	13
68	Measurement and simulation of the cross sections for nuclide production in ⁹³ Nb and natNi targets irradiated with 0.04- to 2.6-GeV protons. <i>Physics of Atomic Nuclei</i> , 2011, 74, 537-550.	0.4	24
69	Measurement and simulation of the cross sections for nuclide production in natW and ¹⁸¹ Ta targets irradiated with 0.04- to 2.6-GeV protons. <i>Physics of Atomic Nuclei</i> , 2011, 74, 551-572.	0.4	31
70	Measurement and simulation of the cross sections for the production of ¹⁴⁸ Gd in thin natW and ¹⁸¹ Ta targets irradiated with 0.4- to 2.6-GeV protons. <i>Physics of Atomic Nuclei</i> , 2011, 74, 573-579.	0.4	8
71	Elusiveness of evidence for multifragmentation in 1-GeV proton-nucleus reactions. <i>Physical Review C</i> , 2011, 84, .	2.9	13
72	Influence of nuclear de-excitation on observables relevant for space exploration. <i>Advances in Space Research</i> , 2011, 47, 1194-1199.	2.6	1

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73	The extension of the INCL model for simulation of shielding in space. <i>Advances in Space Research</i> , 2011, 48, 383-389.	2.6	2
74	Verification of high-energy transport codes on the basis of activation data. <i>Physical Review C</i> , 2011, 84, .	2.9	19
75	Recent Developments of the PHITS code. <i>Progress in Nuclear Science and Technology</i> , 2011, 1, 1-6.	0.3	6
76	INCL Intra-Nuclear Cascade and ABLA De-Excitation Models in Geant4. <i>Progress in Nuclear Science and Technology</i> , 2011, 2, 788-793.	0.3	20
77	Multifragmentation in Reactions of 1-GeV Protons with Iron Nuclei. <i>Journal of the Korean Physical Society</i> , 2011, 59, 943-946.	0.7	1
78	New Features of the INCL4 Model for Spallation Reactions. <i>Journal of the Korean Physical Society</i> , 2011, 59, 955-958.	0.7	27
79	Unified description of fission in fusion and spallation reactions. <i>Physical Review C</i> , 2010, 82, .	2.9	114
80	Improved modelling of helium and tritium production for spallation targets. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010, 268, 581-586.	1.4	10
81	An update about recent developments of the PHITS code. <i>Advances in Space Research</i> , 2010, 45, 892-899.	2.6	28
82	PHITS simulations of the Matroshka experiment. <i>Advances in Space Research</i> , 2010, 46, 1266-1272.	2.6	13
83	CONSTRAINING FISSION PARAMETERS FOR HIGHLY EXCITED COMPOUND NUCLEI. , 2010, , .		0
84	Stability of nuclei in peripheral collisions in the JAERI quantum molecular dynamics model. <i>Physical Review C</i> , 2009, 79, .	2.9	20
85	Calculation of energy-deposition distributions and microdosimetric estimation of the biological effect of a 9C beam. <i>Radiation and Environmental Biophysics</i> , 2009, 48, 135-143.	1.4	1
86	Simulation of ALTEA calibration data with PHITS, FLUKA and GEANT4. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009, 267, 3549-3557.	1.4	5
87	Present status and validation of HIBRAC. <i>Radiation Measurements</i> , 2009, 44, 38-46.	1.4	34
88	Simulations of the radiation environment at ISS altitudes. <i>Acta Astronautica</i> , 2009, 65, 279-288.	3.2	7
89	Comparisons of fragmentation spectra using 1GeV/amu 56Fe data and the PHITS model. <i>Radiation Measurements</i> , 2008, 43, 1242-1253.	1.4	15
90	Benchmarking of calculated projectile fragmentation cross-sections using the 3-D, MC codes PHITS, FLUKA, HETC-HEDS, MCNPX_HI, and NUCFRG2. <i>Acta Astronautica</i> , 2008, 63, 865-877.	3.2	36

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91	Dose calculations at high altitudes and in deep space with GEANT4 using BIC and JQMD models for nucleusâ€™ nucleus reactions. New Journal of Physics, 2008, 10, 105019. Fragmentation cross sections of medium-energy	2.9	11
92	$\frac{d\sigma}{d\Omega dA dt} = \frac{d\sigma}{d\Omega dA dt} \left(\frac{d\sigma}{d\Omega dA dt} \right)^{35}$	2.9	38
93	Improved dose and fluence calculations by using tabulated cross sections in PHITS. , 2008, , .		2
94	PHITS Overview. AIP Conference Proceedings, 2007, , .	0.4	5
95	Calculation of energy-deposition distributions of a ^{9}C beam using the PHITS code. Journal of Physics: Conference Series, 2007, 74, 021011.	0.4	0
96	Recent developments and benchmarking of the PHITS code. Advances in Space Research, 2007, 40, 1320-1331.	2.6	36
97	Comparison of aluminum and lucite for shielding against 1GeV protons. Advances in Space Research, 2007, 40, 581-585.	2.6	16
98	PHITS â€™ benchmark of partial charge-changing cross sections for intermediate-mass systems. Nuclear Instruments & Methods in Physics Research B, 2007, 254, 30-38.	1.4	17
99	Shielding of relativistic protons. Radiation and Environmental Biophysics, 2007, 46, 107-111.	1.4	15
100	Test of weak and strong factorization in nucleusâ€™ nucleus collisions at several hundred MeV/nucleon. Nuclear Physics A, 2007, 791, 434-450.	1.5	12
101	Weak and strong factorization properties in nucleusâ€™ nucleus collisions in the energy region 290â€™2100. Nuclear Physics A, 2007, 791, 451-472.	1.5	3