

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	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
2	New potentialities of the Li ^A ge intranuclear cascade model for reactions induced by nucleons and light charged particles. Physical Review C, 2013, 87, .	2.9	378
3	Unified description of fission in fusion and spallation reactions. Physical Review C, 2010, 82, .	2.9	114
4	Extension of the Li ^A ge intranuclear-cascade model to reactions induced by light nuclei. Physical Review C, 2014, 90, .	2.9	113
5	Online monitoring of the Osiris reactor with the Nucifer neutrino detector. Physical Review D, 2016, 93, .	4.7	58
6	Fragmentation cross sections of medium-energy ^{35}Cl . Cl	2.9	38
7	Proton-induced fission of ^{181}Ta at high excitation energies. Physical Review C, 2014, 89, .	2.9	37
8	Recent developments and benchmarking of the PHITS code. Advances in Space Research, 2007, 40, 1320-1331.	2.6	36
9	Benchmarking of calculated projectile fragmentation cross-sections using the 3-D, MC codes PHITS, FLUKA, HETC-HEDS, MCNPX_HI, and NUCFRG2. Acta Astronautica, 2008, 63, 865-877.	3.2	36
10	Present status and validation of HIBRAC. Radiation Measurements, 2009, 44, 38-46.	1.4	34
11	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
12	Improving the description of proton-induced one-nucleon removal in intranuclear-cascade models. Physical Review C, 2015, 91, .	2.9	33
13	New kinetic simulation capabilities for Tripoli-4 ^A : Methods and applications. Annals of Nuclear Energy, 2018, 120, 74-88.	1.8	33
14	Measurement and simulation of the cross sections for nuclide production in natW and 181Ta targets irradiated with 0.04- to 2.6-GeV protons. Physics of Atomic Nuclei, 2011, 74, 551-572.	0.4	31
15	An update about recent developments of the PHITS code. Advances in Space Research, 2010, 45, 892-899.	2.6	28
16	New Features of the INCL4 Model for Spallation Reactions. Journal of the Korean Physical Society, 2011, 59, 955-958.	0.7	27
17	Measurement and simulation of the cross sections for nuclide production in 93Nb and natNi targets irradiated with 0.04- to 2.6-GeV protons. Physics of Atomic Nuclei, 2011, 74, 537-550.	0.4	24
18	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

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19	GEANT4 simulations of the n_TOF spallation source and their benchmarking. <i>European Physical Journal A</i> , 2015, 51, 1.	2.5	24
20	Improvement of one-nucleon removal and total reaction cross sections in the Liège intranuclear-cascade model using Hartree-Fock-Bogoliubov calculations. <i>Physical Review C</i> , 2017, 96, .	2.9	24
21	Evaporation-cost dependence in heavy-ion fragmentation. <i>Physical Review C</i> , 2013, 88, .	2.9	22
22	Stability of nuclei in peripheral collisions in the JAERI quantum molecular dynamics model. <i>Physical Review C</i> , 2009, 79, .	2.9	20
23	Extension of the Liège 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
24	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
25	Verification of high-energy transport codes on the basis of activation data. <i>Physical Review C</i> , 2011, 84, .	2.9	19
26	Fission induced by nucleons at intermediate energies. <i>Nuclear Physics A</i> , 2015, 933, 43-67.	1.5	18
27	PHITS benchmark of partial charge-changing cross sections for intermediate-mass systems. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007, 254, 30-38.	1.4	17
28	Comparison of aluminum and lucite for shielding against 1GeV protons. <i>Advances in Space Research</i> , 2007, 40, 581-585.	2.6	16
29	Shielding of relativistic protons. <i>Radiation and Environmental Biophysics</i> , 2007, 46, 107-111.	1.4	15
30	Comparisons of fragmentation spectra using 1GeV/amu ⁵⁶ Fe data and the PHITS model. <i>Radiation Measurements</i> , 2008, 43, 1242-1253.	1.4	15
31	Geant4 simulation of the n_TOF-EAR2 neutron beam: Characteristics and prospects. <i>European Physical Journal A</i> , 2016, 52, 1.	2.5	15
32	Modeling astatine production in liquid lead-bismuth spallation targets. <i>European Physical Journal A</i> , 2013, 49, 1.	2.5	14
33	PHITS simulations of the Matroshka experiment. <i>Advances in Space Research</i> , 2010, 46, 1266-1272.	2.6	13
34	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
35	Elusiveness of evidence for multifragmentation in 1-GeV proton-nucleus reactions. <i>Physical Review C</i> , 2011, 84, .	2.9	13
36	On the role of secondary pions in spallation targets. <i>European Physical Journal A</i> , 2017, 53, 1.	2.5	13

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37	Parametrization of cross sections for elementary hadronic collisions involving strange particles. European Physical Journal Plus, 2018, 133, 1.	2.6	13
38	Test of weak and strong factorization in nucleus-nucleus collisions at several hundred MeV/nucleon. Nuclear Physics A, 2007, 791, 434-450.	1.5	12
39	Evaluation of dose rate reduction in a spacecraft compartment due to additional water shield. Cosmic Research, 2011, 49, 319-324.	0.6	12
40	New perturbation and sensitivity capabilities in Tripoli-4 [®] . Annals of Nuclear Energy, 2018, 121, 335-349.	1.8	12
41	Dose calculations at high altitudes and in deep space with GEANT4 using BIC and JQMD models for nucleus-nucleus reactions. New Journal of Physics, 2008, 10, 105019.	2.9	11
42	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
43	Improved modelling of helium and tritium production for spallation targets. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 581-586.	1.4	10
44	Comparisons of hadrontherapy-relevant data to nuclear interaction codes in the Geant4 toolkit. Journal of Physics: Conference Series, 2013, 420, 012163.	0.4	9
45	Nuclear astrophysics with radioactive ions at FAIR. Journal of Physics: Conference Series, 2016, 665, 012044.	0.4	9
46	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. Physics of Atomic Nuclei, 2011, 74, 573-579.	0.4	8
47	Gamma-decay of the GDR in the GEMINI++ Code. Acta Physica Polonica B, 2013, 44, 611.	0.8	8
48	Simulations of the radiation environment at ISS altitudes. Acta Astronautica, 2009, 65, 279-288.	3.2	7
49	QCD analysis of Lambda hyperon production in DIS target-fragmentation region. European Physical Journal C, 2013, 73, 1.	3.9	7
50	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
51	Cauchy formulas for linear transport in random media. Europhysics Letters, 2019, 127, 20006.	2.0	7
52	Review of Monte Carlo methods for particle transport in continuously-varying media. European Physical Journal Plus, 2020, 135, 1.	2.6	7
53	Chaos in eigenvalue search methods. Annals of Nuclear Energy, 2018, 112, 354-363.	1.8	6
54	Recent Developments of the PHITS code. Progress in Nuclear Science and Technology, 2011, 1, 1-6.	0.3	6

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55	PHITS Overview. AIP Conference Proceedings, 2007, , .	0.4	5
56	Simulation of ALTEA calibration data with PHITS, FLUKA and GEANT4. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 3549-3557.	1.4	5
57	Processes involving few degrees of freedom in the frame of Intranuclear Cascade approaches. European Physical Journal Plus, 2016, 131, 1.	2.6	5
58	Constraining statistical-model parameters using fusion and spallation reactions. EPJ Web of Conferences, 2011, 17, 10003.	0.3	4
59	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
60	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
61	HEIR: A High-Energy Intra-Nuclear Cascade Li ⁷ ge-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
62	Zero-variance schemes for kinetic Monte Carlo simulations. European Physical Journal Plus, 2020, 135, 1.	2.6	4
63	Weak and strong factorization properties in nucleus-nucleus collisions in the energy region 290-2100. Nuclear Physics A, 2007, 791, 451-472.	1.5	3
64	Production of heavy clusters (up to A=10) by coalescence during the intranuclear cascade phase of spallation reactions. Journal of Physics: Conference Series, 2011, 312, 082019.	0.4	3
65	Study of the reaction mechanisms of 136Xe + p and 136Xe + 12C at 1 A GeV with inverse kinematics and large-acceptance detectors. European Physical Journal A, 2019, 55, 1.	2.5	3
66	Accelerating Monte Carlo Shielding Calculations in TRIPOLI-4 with a Deterministic Adjoint Flux. Nuclear Science and Engineering, 2019, 193, 966-981.	1.1	3
67	MULTI-PHYSICS TRANSIENT SIMULATIONS WITH TRIPOLI-4 [®] . EPJ Web of Conferences, 2021, 247, 07019.	0.3	3
68	Monte Carlo simulations of the SPERT III E-core transient experiments. European Physical Journal Plus, 2022, 137, 1.	2.6	3
69	Improved dose and fluence calculations by using tabulated cross sections in PHITS. , 2008, , .		2
70	The extension of the INCL model for simulation of shielding in space. Advances in Space Research, 2011, 48, 383-389.	2.6	2
71	The Li ⁷ ge Intranuclear Cascade model - 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
72	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

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73	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
74	Exact weight cancellation in Monte Carlo eigenvalue transport problems. Physical Review E, 2021, 104, 015306.	2.1	2
75	New C++ version of the Liège intranuclear cascade model in Geant4. , 2014, , .		2
76	Space and time correlations for diffusion models with prompt and delayed birth-and-death events. Physical Review E, 2022, 105, .	2.1	2
77	Calculation of energy-deposition distributions and microdosimetric estimation of the biological effect of a ^9C beam. Radiation and Environmental Biophysics, 2009, 48, 135-143.	1.4	1
78	Influence of nuclear de-excitation on observables relevant for space exploration. Advances in Space Research, 2011, 47, 1194-1199.	2.6	1
79	The elusiveness of multifragmentation footprints in 1-GeV proton-nucleus reactions. EPJ Web of Conferences, 2012, 31, 00037.	0.3	1
80	Simultaneous fitting of statistical-model parameters to symmetric and asymmetric fission cross sections. Journal of Physics: Conference Series, 2013, 420, 012130.	0.4	1
81	Fission at intermediate neutron energies. Journal of Physics: Conference Series, 2014, 533, 012024.	0.4	1
82	Progress on the TRIPOLI-4 [®] -Geant4 coupling. EPJ Web of Conferences, 2017, 153, 06002.	0.3	1
83	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
84	TOWARDS ZERO-VARIANCE SCHEMES FOR KINETIC MONTE-CARLO SIMULATIONS. EPJ Web of Conferences, 2021, 247, 04010.	0.3	1
85	Comparison of variance reduction methods in shielding problems with source multiplication. European Physical Journal Plus, 2021, 136, 1.	2.6	1
86	Multifragmentation in Reactions of 1-GeV Protons with Iron Nuclei. Journal of the Korean Physical Society, 2011, 59, 943-946.	0.7	1
87	Calculation of energy-deposition distributions of a ^9C beam using the PHITS code. Journal of Physics: Conference Series, 2007, 74, 021011.	0.4	0
88	30 Years of Strong Interactions: a Three-Day Meeting in Honour of Joseph Cugnon and Hans-Jürgen Pirner. Few-Body Systems, 2012, 53, 1-2.	1.5	0
89	Fission at intermediate nucleon energies. Journal of Physics: Conference Series, 2014, 527, 012007.	0.4	0
90	Shell structure and few-nucleon removal in intranuclear cascade. Journal of Physics: Conference Series, 2015, 580, 012024.	0.4	0

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91	Monte Carlo calculations of nucleon-induced fission in the GeV energy range. EPJ Web of Conferences, 2017, 146, 04049.	0.3	0
92	On the role of secondary pions in spallation targets. EPJ Web of Conferences, 2017, 146, 12018.	0.3	0
93	Nuclide production in spallation reactions: How useful are the simulations?. Journal of Physics: Conference Series, 2018, 1046, 012001.	0.4	0
94	Excitation of baryon resonances in charge-exchange reactions of heavy nuclei. Journal of Physics: Conference Series, 2018, 1024, 012002.	0.4	0
95	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
96	Comparison of variance-reduction techniques for gamma dose rate determination. European Physical Journal Plus, 2021, 136, 1.	2.6	0
97	CONSTRAINING FISSION PARAMETERS FOR HIGHLY EXCITED COMPOUND NUCLEI. , 2010, , .		0
98	New capabilities of the Li ⁷ ge intranuclear-cascade model for particle-transport codes. , 2014, , .		0
99	Production of some particular isotopes in spallation targets calculated with INCL4.6-ABLA07 implemented into MCNPX. , 2014, , .		0
100	New features of the INCL model for spallation reactions. Journal of Physics: Conference Series, 2020, 1643, 012080.	0.4	0
101	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