Nicola Colonna

List of Publications by Year
in descending order

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79 papers	2,385 citations	201674 27 h-index	223800 46 g-index
84 all docs	84 docs citations	84 times ranked	1153 citing authors

#	Article	IF	Citations
1	Neutron detection techniques from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e2782" altimg="si1.svg"><mml:mrow><mml:mi mathvariant="normal">Î¼</mml:mi><mml:mi mathvariant="normal">eV</mml:mi></mml:mrow></mml:math>to GeV. Physics Reports, 2020, 875, 1-65.	25.6	43
2	Investigation of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi>Pu</mml:mi><mml:mprescripts /><mml:none /><mml:mn>240</mml:mn></mml:mmultiscripts><mml:mo>(</mml:mo><mml:mi>n</mml:mi><mml:mo>,</mml:mo><mml:mi>f</mml reaction at the n_TOF/EAR2 facility in the 9 meVâ€“6 MeV range. Physical Review C, 2020, 102, .	2.9	7
3	The fission experimental programme at the CERN n_TOF facility: status and perspectives. European Physical Journal A, 2020, 56, 1.	2.5	15
4	Fission program at n_TOF. EPJ Web of Conferences, 2019, 211, 03006.	0.3	1
5	On the (un)effectiveness of proton boron capture in proton therapy. European Physical Journal Plus, 2019, 134, 1.	2.6	16
6	Measurement of the 235U(n, f) cross section relative to the 6Li(n, t) and 10B(n,$ alpha$) standards from thermal to 170 keV neutron energy range at n_TOF. European Physical Journal A, 2019, 55, 1.	2.5	20
7	Preliminary results on the 233U capture cross section and alpha ratio measured at n_TOF (CERN) with the fission tagging technique. EPJ Web of Conferences, 2019, 211, 03007.	0.3	3
8	An alternative methodology for high counting-loss corrections in neutron time-of-flight measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 913, 40-47.	1.6	4
9	GEANT4 simulations of a novelÂ 3 He-free thermalization neutron detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 889, 33-38.	1.6	4
10	Neutron physics with accelerators. Progress in Particle and Nuclear Physics, 2018, 101, 177-203.	14.4	17
11	Radiative neutron capture on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Pu</mml:mi><mml:mprescripts /><mml:none /><mml:mn>242</mml:mn></mml:mmultiscripts></mml:math> in the resonance region at Measurement and resonance analysis of the <mml:math	2.9	21
12	xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi mathvariant="normal">S</mml:mi><mml:mprescripts /><mml:none /><mml:mn>33</mml:mn></mml:mmultiscripts><mml:mo>(</mml:mo><mml:mi>n</mml:mi><mml:mo>,</mml:mo><mml:mi>Î±</mml: /><mml:none /><mml:mn>30</mml:mn></mml:mmultiscripts></mml:mrow></mml:math> cross section at the CERN n_TOF facility in the ener. Physical Review C, 2018, 97, .	2.9	8
13	High-accuracy determination of the neutron flux in the new experimental area n_TOF-EAR2 at CERN. European Physical Journal A, 2017, 53, 1.	2.5	41
14	A direct method for unfolding the resolution function from measurements of neutron induced reactions. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 875, 41-50.	1.6	1
15	High accuracy 234U(n,f) cross section in the resonance energy region. EPJ Web of Conferences, 2017, 146, 04057.	0.3	1
16	Dissemination of data measured at the CERN n_TOF facility. EPJ Web of Conferences, 2017, 146, 07002.	0.3	3
17	The³³S(n,Î±)³⁰Si cross section measurement at n_TOF-EAR2 (CERN): From 0.01 eV to the resonance region. EPJ Web of Conferences, 2017, 146, 08004.	0.3	3
18	Measurement of the240Pu(n,f) cross-section at the CERN n_TOF facility: First results from experimental area II (EAR-2). EPJ Web of Conferences, 2017, 146, 04030.	0.3	6

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19	Measurement of the neutron capture cross section of the fissile isotope 235U with the CERN n_TOF total absorption calorimeter and a fission tagging based on micromegas detectors. EPJ Web of Conferences, 2017, 146, 11021.	0.3	7
20	Towards the high-accuracy determination of the238U fission cross section at the threshold region at CERN â€“ n_TOF. EPJ Web of Conferences, 2016, 111, 02002.	0.3	2
21	High accuracy235U(n,f) data in the resonance energy region. EPJ Web of Conferences, 2016, 111, 02003.	0.3	7
22	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi>Be</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>7</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mrow><mml:mi>n</mml:mi></mml:mrow><mml:mo>,</mml:mo><mml:mrow><mml:mi>Î±</mml:m	7.8	94
23	Neutron-induced fission cross section of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>Np</mml:mi><mml:mprescripts /><mml:none /><mml:mn>237</mml:mn></mml:mmultiscripts></mml:math>in the keV to MeV range at the CERN n_TOF facility. Physical Review C, 2016, 93, .	2.9	11
24	Fission Fragment Angular Distribution measurements of235U and238U at CERN n_TOF facility. EPJ Web of Conferences, 2016, 111, 10002.	0.3	14
25	Geant4 simulation of the n_TOF-EAR2 neutron beam: Characteristics and prospects. European Physical Journal A, 2016, 52, 1.	2.5	15
26	Experimental setup and procedure for the measurement of the 7Be(n,Î±)Î± reaction at n_TOF. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 830, 197-205.	1.6	21
27	GEANT4 simulations of the n_TOF spallation source and their benchmarking. European Physical Journal A, 2015, 51, 1.	2.5	24
28	High-accuracy determination of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mmultiscripts><mml:mi mathvariant="normal">U</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>238</mml:mn></mml:mrow></mml:mmultiscripts><mml:mo>/</mml:mo><mml:mmultiscripts><mml:mi mathvariant="normal">U</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>235</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math>fission	2.9	24
29	3He-free neutron detectors and their applications. European Physical Journal Plus, 2015, 130, 1.	2.6	9
30	The new vertical neutron beam line at the CERN n_TOF facility design and outlook on the performance. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 799, 90-98.	1.6	82
31	Measurement of the²⁴²Pu(n,f) cross section at n_TOF. EPJ Web of Conferences, 2014, 66, 03088.	0.3	2
32	Experimental neutron capture data of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow /><mml:mn>58</mml:mn></mml:msup></mml:math>Ni from the CERN n_TOF facility. Physical Review C, 2014, 89, .	2.9	28
33	Neutron-induced fission cross section ofU234measured at the CERN n_TOF facility. Physical Review C, 2014, 89, .	2.9	14
34	Measurement of the angular distribution of fission fragments using a PPAC assembly at CERN n_TOF. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 743, 79-85.	1.6	28
35	The (n, Î±) Reaction in the s-process Branching Point 59Ni. Nuclear Data Sheets, 2014, 120, 208-210.	2.2	14
36	GEANT4 simulation of the neutron background of the C6D6 set-up for capture studies at n_TOF. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 760, 57-67.	1.6	31

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37	High-accuracy determination of the neutron flux at n_TOF. European Physical Journal A, 2013, 49, 1.	2.5	71
38	Performance of the neutron time-of-flight facility n_TOF at CERN. European Physical Journal A, 2013, 49, 1.	2.5	205
39	Measurement of the neutron-induced fission cross-section of 241Am at the time-of-flight facility n_TOF. European Physical Journal A, 2013, 49, 1.	2.5	9
40	A new CVD diamond mosaic-detector for (n, <mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 637 Td (xmlns:mml="http://www.w3.org/ at CERN. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 732, 190-194.	1.6	26
41	Neutron-induced fission cross section of245Cm: New results from data taken at the time-of-flight facility n_TOF. Physical Review C, 2012, 85, .	2.9	13
42	Simultaneous measurement of neutron-induced capture and fission reactions at CERN. European Physical Journal A, 2012, 48, 1.	2.5	19
43	Neutron measurements for advanced nuclear systems: The n_TOF project at CERN. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 3251-3257.	1.4	10
44	Neutron-induced fission cross-section of 233U in the energy range 0.5 < En < 20 MeV. European Physical Journal A, 2011, 47, 1.	2.5	15
45	Measurement of the neutron-induced fission cross-section of 243Am relative to 235U from 0.5 to 20 MeV. European Physical Journal A, 2011, 47, 1.	2.5	11
46	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>96</mml:mn></mml:msup></mml:math>Zr(<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (xmlns:mml="http://w	2.9	17
47	Neutron capture on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Zr</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>94</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>: Resonance parameters and Maxwellian-averaged cross sections. Physical Review C, 2011, 84, .	2.9	24
48	Neutron-induced fission cross section of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow /><mml:mrow><mml:mi mathvariant="normal">nat</mml:mi></mml:mrow></mml:msup></mml:mrow></mml:math>Pb and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Bi</mml:mi><mml:mprescripts />	2.9	36
49	Measurement of the236U(n,f) cross section from 170 meV to 2 MeV at the CERNn_TOFfacility. Physical Review C, 2011, 84, .	2.9	14
50	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Au</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>197</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>(<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10	2.9	68
51	Forthcoming (n, Î³) measurements on the Fe and Ni isotopes at CERN n_TOF. Journal of Physics: Conference Series, 2010, 202, 012026.	0.4	0
52	Neutron cross-sections for next generation reactors: New data from n_TOF. Applied Radiation and Isotopes, 2010, 68, 643-646.	1.5	7
53	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Au</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>197</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>(<mml:math) Tj ETQq1 1 0.784314 rgBT /O	2.9	55
54	The<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Zr</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>92</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>(<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10	2.9	33

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55	Neutron-induced fission cross section of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">U</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>234</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Np</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>237</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>	2.9	72
56	Advanced nuclear energy systems and the need of accurate nuclear data: the n_TOF project at CERN. Energy and Environmental Science, 2010, 3, 1910.	30.8	55
57	High-accuracyU233(n,f)cross-section measurement at the white-neutron source n_TOF from near-thermal to1MeV neutron energy. Physical Review C, 2009, 80, .	2.9	30
58	The n_TOF Total Absorption Calorimeter for neutron capture measurements at CERN. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, 424-433.	1.6	80
59	On the magnitude of the 8Li + 4He â† 11B + n reaction cross section at the Big-Bang temperature. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 664, 157-161.	4.1	19
60	Experimental study of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Zr</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>91</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>(<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10	2.9	34
61	Neutron capture cross section of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi mathvariant="normal">Zr</mml:mi><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>90</mml:mn></mml:mrow></mml:mmultiscripts></mml:math>: Bottleneck in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>s</mml:mi></mml:mrow></mml:math>-process reaction flow. Physical Review C, 2008, 77, .	2.9	44
62	TheLa139(n,Î³) cross section: Key for the onset of thes-process. Physical Review C, 2007, 75, .	2.9	24
63	4Ï€ Neutron detection with low-intensity radioactive beams. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 581, 783-790.	1.6	10
64	Status and outlook of the neutron time-of-flight facility n_TOF at CERN. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 925-929.	1.4	35
65	The neutron capture cross sections of 237Np(n,Î³) and 240Pu(n,Î³) and its relevance in the transmutation of nuclear waste. , 2007, , .		5
66	Measurement of neutron induced fission of ²³⁵U, ²³³U and ²⁴⁵Cm with the FIC detector at the CERN n_TOF facility. , 2007, , .		4
67	Pulse shape analysis of signals from BaF2 and CeF3 scintillators for neutron capture experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 568, 904-911.	1.6	15
68	Measurement of theSm151(n,Î³) cross section from 0.6 eV to 1 MeV via the neutron time-of-flight technique at the CERN n_TOF facility. Physical Review C, 2006, 73, .	2.9	36
69	Neutron capture cross section ofTh232measured at the n_TOF facility at CERN in the unresolved resonance region up to 1 MeV. Physical Review C, 2006, 73, .	2.9	41
70	The data acquisition system of the neutron time-of-flight facility n_TOF at CERN. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 538, 692-702.	1.6	84
71	Neutron cross-section measurements at the n_TOF facility at CERN. Nuclear Instruments & Methods in Physics Research B, 2004, 213, 49-54.	1.4	2
72	A low background neutron flux monitor for the n_TOF facility at CERN. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 517, 389-398.	1.6	75

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73	Timeâ€“energy relation of the n_TOF neutron beam: energy standards revisited. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 532, 622-630.	1.6	34
74	New experimental validation of the pulse height weighting technique for capture cross-section measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 521, 454-467.	1.6	101
75	SIMULATIONS OF NEUTRON TRANSPORT AT LOW ENERGY: A COMPARISON BETWEEN GEANT AND MCNP. Health Physics, 2002, 82, 840-846.	0.5	12
76	Pulse shape analysis of liquid scintillators for neutron studies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 490, 299-307.	1.6	147
77	On the optimal energy of epithermal neutron beams for BNCT. Physics in Medicine and Biology, 2000, 45, 49-58.	3.0	75
78	Response of liquid scintillator detectors to neutrons of En < 1 MeV. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 416, 109-114.	1.6	11
79	A modular array for neutron spectroscopy in low- and intermediate-energy heavy-ion reactions. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 381, 472-480.	1.6	21