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	Performance of the neutron time-of-flight facility n_TOF at CERN. European Physical Journal A, 2013, 49, 1.	2.5	205
2	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
3	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
4	<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
5	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
6	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
7	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
8	On the optimal energy of epithermal neutron beams for BNCT. Physics in Medicine and Biology, 2000, 45, 49-58.	3.0	75
9	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
10	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:	2.9	72
11	High-accuracy determination of the neutron flux at n_TOF. European Physical Journal A, 2013, 49, 1.	2.5	71
12	<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
13	<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 /Ov	2.9	55
14	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
15	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.	2.9	44
16	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
17	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
18	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

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19	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
20	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
21	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
22	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
23	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 ETQq1 1 0.784314 rgBT /Over	2.9	34
24	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
25	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
26	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
27	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
28	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
29	A new CVD diamond mosaic-detector for (n, <mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 357 Td (xmlns:mml="http://w at CERN. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 732, 190-194.	1.6	26
30	TheLa139(n,Î³) cross section: Key for the onset of thes-process. Physical Review C, 2007, 75, .	2.9	24
31	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
32	GEANT4 simulations of the n_TOF spallation source and their benchmarking. European Physical Journal A, 2015, 51, 1.	2.5	24
33	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
34	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
35	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
36	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 the CERN n_TOF-EAR1 facility. Physical Review C, 2018, 97, .	2.9	21

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37	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
38	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
39	Simultaneous measurement of neutron-induced capture and fission reactions at CERN. European Physical Journal A, 2012, 48, 1.	2.5	19
40	<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 50 627 Td (xmlns:mml="http://w	2.9	17
41	R Neutron physics with accelerators. Progress in Particle and Nuclear Physics, 2018, 101, 177-203.	14.4	17
42	On the (un)effectiveness of proton boron capture in proton therapy. European Physical Journal Plus, 2019, 134, 1.	2.6	16
43	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
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	Geant4 simulation of the n_TOF-EAR2 neutron beam: Characteristics and prospects. European Physical Journal A, 2016, 52, 1.	2.5	15
46	The fission experimental programme at the CERN n_TOF facility: status and perspectives. European Physical Journal A, 2020, 56, 1.	2.5	15
47	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
48	Neutron-induced fission cross section ofU234measured at the CERN n_TOF facility. Physical Review C, 2014, 89, .	2.9	14
49	The (n, Î±) Reaction in the s-process Branching Point 59Ni. Nuclear Data Sheets, 2014, 120, 208-210.	2.2	14
50	Fission Fragment Angular Distribution measurements of235U and238U at CERN n_TOF facility. EPJ Web of Conferences, 2016, 111, 10002.	0.3	14
51	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
52	SIMULATIONS OF NEUTRON TRANSPORT AT LOW ENERGY: A COMPARISON BETWEEN GEANT AND MCNP. Health Physics, 2002, 82, 840-846.	0.5	12
53	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
54	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

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55	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
56	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
57	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
58	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
59	3He-free neutron detectors and their applications. European Physical Journal Plus, 2015, 130, 1.	2.6	9
60	Measurement and resonance analysis of the <mml:math 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:mi><mml:mprescripts /><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
61	Neutron cross-sections for next generation reactors: New data from n_TOF. Applied Radiation and Isotopes, 2010, 68, 643-646.	1.5	7
62	High accuracy235U(n,f) data in the resonance energy region. EPJ Web of Conferences, 2016, 111, 02003.	0.3	7
63	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
64	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:mi> reaction at the n_TOF/EAR2 facility in the 9 meVâ€“6 MeV range. Physical Review C, 2020, 102, .	2.9	7
65	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
66	The neutron capture cross sections of 237Np(n,Î³) and 240Pu(n,Î³) and its relevance in the transmutation of nuclear waste. , 2007, , .		5
67	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
68	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
69	Measurement of neutron induced fission of ²³⁵U, ²³³U and ²⁴⁵Cm with the FIC detector at the CERN n_TOF facility. , 2007, , .		4
70	Dissemination of data measured at the CERN n_TOF facility. EPJ Web of Conferences, 2017, 146, 07002.	0.3	3
71	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
72	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

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73	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
74	Measurement of the²⁴²Pu(n,f) cross section at n_TOF. EPJ Web of Conferences, 2014, 66, 03088.	0.3	2
75	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
76	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
77	High accuracy 234U(n,f) cross section in the resonance energy region. EPJ Web of Conferences, 2017, 146, 04057.	0.3	1
78	Fission program at n_TOF. EPJ Web of Conferences, 2019, 211, 03006.	0.3	1
79	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