

# Tomoko Ariga

## List of Publications by Year in descending order

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96  
papers

5,332  
citations

145106

33  
h-index

90395

73  
g-index

99  
all docs

99  
docs citations

99  
times ranked

2705  
citing authors

#	ARTICLE	IF	CITATIONS
1	First neutrino interaction candidates at Large Hadron Collider. <i>Europhysics News</i> , 2022, 53, 4-5.	0.1	0
2	SMAUG v1.0 – a user-friendly muon simulator for the imaging of geological objects in 3-D. <i>Geoscientific Model Development</i> , 2022, 15, 2441-2473.	1.3	1
3	The tracking detector of the FASER experiment. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2022, 1034, 166825.	0.7	10
4	The Forward Physics Facility: Sites, experiments, and physics potential. <i>Physics Reports</i> , 2022, 968, 1-50.	10.3	57
5	A novel nuclear emulsion detector for measurement of quantum states of ultracold neutrons in the Earth's gravitational field. <i>Journal of Instrumentation</i> , 2022, 17, P07014.	0.5	3
6	Neutron Imaging Using a Fine-Grained Nuclear Emulsion. <i>Journal of Imaging</i> , 2021, 7, 4.	1.7	5
7	OPERA tau neutrino charged current interactions. <i>Scientific Data</i> , 2021, 8, 218.	2.4	3
8	Muon tomography in geoscientific research – A guide to best practice. <i>Earth-Science Reviews</i> , 2021, 222, 103842.	4.0	13
9	First neutrino interaction candidates at the LHC. <i>Physical Review D</i> , 2021, 104, .	1.6	32
10	The trigger and data acquisition system of the FASER experiment. <i>Journal of Instrumentation</i> , 2021, 16, P12028.	0.5	13
11	First observation of a tau neutrino charged current interaction with charm production in the OPERA experiment. <i>European Physical Journal C</i> , 2020, 80, 1.	1.4	3
12	Detecting and studying high-energy collider neutrinos with FASER at the LHC. <i>European Physical Journal C</i> , 2020, 80, 1.	1.4	79
13	Nuclear Emulsions. , 2020, , 383-438.		9
14	DsTau: study of tau neutrino production with 400 GeV protons from the CERN-SPS. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	1.6	29
15	Measurement of the cosmic ray muon flux seasonal variation with the OPERA detector. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 003-003.	1.9	12
16	FASER's physics reach for long-lived particles. <i>Physical Review D</i> , 2019, 99, .	1.6	205
17	Bedrock sculpting under an active alpine glacier revealed from cosmic-ray muon radiography. <i>Scientific Reports</i> , 2019, 9, 6970.	1.6	21
18	Final results on neutrino oscillation parameters from the OPERA experiment in the CNCS beam. <i>Physical Review D</i> , 2019, 100, .	1.6	9

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19	Latest results of the OPERA experiment on nu-tau appearance in the CNGS neutrino beam. , 2019, , .		1
20	Study of charged hadron multiplicities in charged-current neutrino-lead interactions in the OPERA detector. European Physical Journal C, 2018, 78, 1.	1.4	9
21	A cold/ultracold neutron detector using fine-grained nuclear emulsion with spatial resolution less than 100 nm. European Physical Journal C, 2018, 78, 1.	1.4	12
22	The effect of rock composition on muon tomography measurements. Solid Earth, 2018, 9, 1517-1533.	1.2	15
23	Final Results of the OPERA Experiment on $\bar{\nu}_\mu \rightarrow \bar{\nu}_\tau$ Appearance in the CNGS Neutrino Beam. Physical Review Letters. 2018, 120, 211801.	2.9	91
24	A Nuclear Emulsion Detector for the Muon Radiography of a Glacier Structure. Instruments, 2018, 2, 7.	0.8	10
25	Final results of the search for $\hat{\nu}_{1/2} \hat{\nu}_{1/4} \hat{\nu}_{1/2} \hat{\nu}_{1/2}$ oscillations with the OPERA detector in the CNGS beam. Journal of High Energy Physics, 2018, 2018, 1.	1.6	15
26	First measurement of ice-bedrock interface of alpine glaciers by cosmic muon radiography. Geophysical Research Letters, 2017, 44, 6244-6251.	1.5	40
27	NEW RESULTS FROM THE OPERA EXPERIMENT. , 2017, , 54-60.		0
28	Characterization of a transmission positron/positronium converter for antihydrogen production. Nuclear Instruments & Methods in Physics Research B, 2017, 407, 55-66.	0.6	7
29	Measurement of antiproton annihilation on Cu, Ag and Au with emulsion films. Journal of Instrumentation, 2017, 12, P04021-P04021.	0.5	4
30	The AEGIS experiment at CERN: measuring antihydrogen free-fall in earth's gravitational field to test WEP with antimatter. Journal of Physics: Conference Series, 2017, 791, 012014.	0.3	7
31	The DAQ system for the AEGIS experiment. Journal of Physics: Conference Series, 2017, 898, 032014.	0.3	1
32	Extra-large crystal emulsion detectors for future large-scale experiments. Journal of Instrumentation, 2016, 11, P03003-P03003.	0.5	8
33	Probing antimatter gravity - The AEGIS experiment at CERN. EPJ Web of Conferences, 2016, 126, 02016.	0.1	2
34	Determination of the muon charge sign with the dipolar spectrometers of the OPERA experiment. Journal of Instrumentation, 2016, 11, P07022-P07022.	0.5	2
35	Detection of low energy antimatter with emulsions. Journal of Instrumentation, 2016, 11, P06017-P06017.	0.5	9
36	Laser excitation of the $n=2$ state of positronium for antihydrogen production. Physical Review A, 2016, 94, .	1.0	3

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37	Direct detection of antiprotons with the Timepix3 in a new electrostatic selection beamline. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 12-17.	0.7	6
38	The OPERA experiment. Nuclear and Particle Physics Proceedings, 2015, 267-269, 87-93.	0.2	0
39	Discovery of $\bar{\nu}_e$ Neutrino Appearance in the CNGS Neutrino Beam with the OPERA Experiment. Physical Review Letters, 2015, 115, 121802.	2.9	132
40	Testing the Weak Equivalence Principle with an antimatter beam at CERN. Journal of Physics: Conference Series, 2015, 631, 012047.	0.3	7
41	Particle tracking at cryogenic temperatures: the Fast Annihilation Cryogenic Tracking (FACT) detector for the AEGIS antimatter gravity experiment. Journal of Instrumentation, 2015, 10, C02023-C02023.	0.5	5
42	Positron bunching and electrostatic transport system for the production and emission of dense positronium clouds into vacuum. Nuclear Instruments & Methods in Physics Research B, 2015, 362, 86-92.	0.6	34
43	Limits on muon-neutrino to tau-neutrino oscillations induced by a sterile neutrino state obtained by OPERA at the CNGS beam. Journal of High Energy Physics, 2015, 2015, 1.	1.6	17
44	Characterization of the dose distribution in the halo region of a clinical proton pencil beam using emulsion film detectors. Journal of Instrumentation, 2015, 10, P01007-P01007.	0.5	2
45	Experiments with low-energy antimatter. EPJ Web of Conferences, 2015, 96, 01007.	0.1	1
46	Measurement of the muon beam direction and muon flux for the T2K neutrino experiment. Progress of Theoretical and Experimental Physics, 2015, 2015, 53C01-0.	1.8	9
47	Physics potential of a long-baseline neutrino oscillation experiment using a J-PARC neutrino beam and Hyper-Kamiokande. Progress of Theoretical and Experimental Physics, 2015, 2015, 53C02-0.	1.8	157
48	The AEGIS experiment. Hyperfine Interactions, 2015, 233, 13-20.	0.2	18
49	Emulsion detectors for the antihydrogen detection in AEGIS. Hyperfine Interactions, 2015, 233, 29-34.	0.2	1
50	A moiré deflectometer for antimatter. Nature Communications, 2014, 5, 4538.	5.8	71
51	Measurement of the intrinsic electron neutrino component in the T2K neutrino beam with the ND280 detector. Physical Review D, 2014, 89, .	1.6	26
52	Measurement of the neutrino-oxygen neutral-current interaction cross section by observing nuclear deexcitation $\nu + \text{O} \rightarrow \nu + \text{O} + \gamma$ rays. Physical Review D, 2014, 90, .	1.6	20
53	The AEGIS Experiment. Hyperfine Interactions, 2014, 228, 121-131.	0.2	6
54	Evidence for $\bar{\nu}_e$ Neutrino Appearance in the CNGS neutrino beam with the OPERA experiment. Physical Review D, 2014, 89, .	1.6	132

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55	Observation of tau neutrino appearance in the CNGS beam with the OPERA experiment. Progress of Theoretical and Experimental Physics, 2014, 2014, 101C01-101C01.	1.8	37
56	AEGIS experiment: Towards antihydrogen beam production for antimatter gravity measurements. European Physical Journal D, 2014, 68, 1.	0.6	4
57	Observation of Electron Neutrino Appearance in a Muon Neutrino Beam. Physical Review Letters, 2014, 112, 061802.	2.9	369
58	Precise Measurement of the Neutrino Mixing Parameter $\theta_{23}$ from Muon Neutrino Disappearance in an Off-Axis Beam. Physical Review Letters, 2014, 112, 181801.	2.9	168
59	Measurement of the TeV atmospheric muon charge ratio with the complete OPERA data set. European Physical Journal C, 2014, 74, 1.	1.4	21
60	Procedure for short-lived particle detection in the OPERA experiment and its application to charm decays. European Physical Journal C, 2014, 74, 1.	1.4	31
61	The mass-hierarchy and CP-violation discovery reach of the LBNO long-baseline neutrino experiment. Journal of High Energy Physics, 2014, 2014, 1.	1.6	41
62	Measuring the gravitational free-fall of antihydrogen. Hyperfine Interactions, 2014, 228, 151-157.	0.2	4
63	Recent Results from the T2K Experiment. Nuclear Physics, Section B, Proceedings Supplements, 2014, 246-247, 23-28.	0.5	2
64	Fast 4 $\pi$ track reconstruction in nuclear emulsion detectors based on GPU technology. Journal of Instrumentation, 2014, 9, P04002-P04002.	0.5	22
65	Development of nuclear emulsions operating in vacuum for the AEGIS experiment. Journal of Instrumentation, 2014, 9, C01061-C01061.	0.5	2
66	AEGIS Experiment: Measuring the acceleration of the earth's gravitational field on antihydrogen beam. EPJ Web of Conferences, 2014, 71, 00128.	0.1	0
67	Measuring GBAR with emulsion detector. International Journal of Modern Physics Conference Series, 2014, 30, 1460268.	0.7	3
68	Measurement of the neutrino velocity with the OPERA detector in the CNGS beam using the 2012 dedicated data. Journal of High Energy Physics, 2013, 2013, 1.	1.6	21
69	Addendum: search for $\hat{\nu}_{1/2} \hat{\nu}_{1/4} \hat{\nu}_{1/2} e$ oscillations with the OPERA experiment in the CNGS beam. Journal of High Energy Physics, 2013, 2013, 1.	1.6	6
70	Search for $\hat{\nu}_{1/2} \hat{\nu}_{1/4} \hat{\nu}_{1/2} e$ oscillations with the OPERA experiment in the CNGS beam. Journal of High Energy Physics, 2013, 2013, 1.	1.6	58
71	Particle tracking at 4K: The Fast Annihilation Cryogenic Tracking (FACT) detector for the AEGIS antimatter gravity experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 732, 437-441.	0.7	10
72	T2K neutrino flux prediction. Physical Review D, 2013, 87, .	1.6	165

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73	Measurement of the inclusive $\nu_{\mu} \rightarrow \nu_{\tau}$ charged current cross section on carbon in the near detector of the T2K experiment. Physical Review D, 2013, 87, .	1.6	94
74	Measurement of Neutrino Oscillation Parameters from Muon Neutrino Disappearance with an Off-Axis Beam. Physical Review Letters, 2013, 111, 211803.	2.9	79
75	New results on $\nu_{\mu} \rightarrow \nu_{\tau}$ appearance with the OPERA experiment in the CNGS beam. Journal of High Energy Physics, 2013, 2013, 1.	1.6	51
76	Development of nuclear emulsions with $\nu_{\mu} \rightarrow \nu_{\tau}$ spatial resolution for the AEGIS experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 732, 325-329.	0.7	43
77	AEGIS experiment commissioning at CERN. AIP Conference Proceedings, 2013, , .	0.3	18
78	Evidence of electron neutrino appearance in a muon neutrino beam. Physical Review D, 2013, 88, .	1.6	116
79	Publisher's Note: T2K neutrino flux prediction [Phys. Rev. D87, 012001 (2013)]. Physical Review D, 2013, 87, .	1.6	40
80	Prospects for measuring the gravitational free-fall of antihydrogen with emulsion detectors. Journal of Instrumentation, 2013, 8, P08013-P08013.	0.5	33
81	A new application of emulsions to measure the gravitational force on antihydrogen. Journal of Instrumentation, 2013, 8, P02015-P02015.	0.5	25
82	Search for $\nu_{\mu} \rightarrow \nu_{\tau}$ oscillation with the OPERA experiment in the CNGS beam. New Journal of Physics, 2012, 14, 033017.	1.2	18
83	First muon-neutrino disappearance study with an off-axis beam. Physical Review D, 2012, 85, .	1.6	77
84	A dedicated device for measuring the magnetic field of the ND280 magnet in the T2K experiment. Journal of Instrumentation, 2012, 7, P01018-P01018.	0.5	1
85	Measurement of the neutrino velocity with the OPERA detector in the CNGS beam. Journal of High Energy Physics, 2012, 2012, 1.	1.6	116
86	Measurements of the T2K neutrino beam properties using the INGRID on-axis near detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 694, 211-223.	0.7	86
87	Momentum measurement by the multiple Coulomb scattering method in the OPERA lead-emulsion target. New Journal of Physics, 2012, 14, 013026.	1.2	64
88	The T2K experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 659, 106-135.	0.7	585
89	Study of neutrino interactions with the electronic detectors of the OPERA experiment. New Journal of Physics, 2011, 13, 053051.	1.2	44
90	Indication of Electron Neutrino Appearance from an Accelerator-Produced Off-Axis Muon Neutrino Beam. Physical Review Letters, 2011, 107, 041801.	2.9	1,054

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91	Status and results from the OPERA experiment. , 2011, , .		0
92	Measurement of the atmospheric muon charge ratio with the OPERA detector. European Physical Journal C, 2010, 67, 25-37.	1.4	26
93	Observation of a first $\nu_{\tau}$ candidate event in the OPERA experiment in the CNGS beam. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics. 2010. 691. 138-145.	1.5	173
94	The OPERA experiment in the CERN to Gran Sasso neutrino beam. Journal of Instrumentation, 2009, 4, P04018-P04018.	0.5	195
95	The detection of neutrino interactions in the emulsion/lead target of the OPERA experiment. Journal of Instrumentation, 2009, 4, P06020-P06020.	0.5	41
96	Positron Manipulation and Positronium Laser Excitation in AEGIS. Defect and Diffusion Forum, 0, 373, 11-16.	0.4	0