

# Valeri E Tioukov

## List of Publications by Year in descending order

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113  
papers

2,988  
citations

159585

30  
h-index

189892

50  
g-index

118  
all docs

118  
docs citations

118  
times ranked

4557  
citing authors

#	ARTICLE	IF	CITATIONS
1	The OPERA experiment in the CERN to Gran Sasso neutrino beam. Journal of Instrumentation, 2009, 4, P04018-P04018.	1.2	195
2	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.	4.1	173
3	Discovery of $\nu_{\tau}$ Neutrino Appearance in the CNGS Neutrino Beam with the OPERA Experiment. Physical Review Letters, 2015, 115, 121802.	7.8	132
4	Measurement of the neutrino velocity with the OPERA detector in the CNGS beam. Journal of High Energy Physics, 2012, 2012, 1.	4.7	116
5	Measurement of nucleon structure functions in neutrino scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 632, 65-75.	4.1	113
6	High-speed particle tracking in nuclear emulsion by last-generation automatic microscopes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 551, 261-270.	1.6	108
7	First events from the CNGS neutrino beam detected in the OPERA experiment. New Journal of Physics, 2006, 8, 303-303.	2.9	88
8	Hardware performance of a scanning system for high speed analysis of nuclear emulsions. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 568, 578-587.	1.6	88
9	Evidence for $\nu_{\tau}$ oscillation in the CNGS neutrino beam with the OPERA experiment. Physical Review D, 2014, 89, .	4.7	58
10	Readout technologies for directional WIMP Dark Matter detection. Physics Reports, 2016, 662, 1-46.	25.6	68
11	Momentum measurement by the multiple Coulomb scattering method in the OPERA lead-emulsion target. New Journal of Physics, 2012, 14, 013026.	2.9	64
12	Measurement of charm production in neutrino charged-current interactions. New Journal of Physics, 2011, 13, 093002.	2.9	60
13	Search for $\nu_{\tau}$ oscillations with the OPERA experiment in the CNGS beam. Journal of High Energy Physics, 2013, 2013, 1.	4.7	58
14	New results from a search for $\nu_{\tau}$ oscillation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 497, 8-22.	4.1	56
15	Track reconstruction in the emulsion-lead target of the OPERA experiment using the ESS microscope. Journal of Instrumentation, 2007, 2, P05004-P05004.	1.2	56
16	First muography of Stromboli volcano. Scientific Reports, 2019, 9, 6695.	3.3	56
17	Final results on oscillation from the CHORUS experiment. Nuclear Physics B, 2008, 793, 326-343.	2.5	52
18	New results on $\nu_{\tau}$ appearance with the OPERA experiment in the CNGS beam. Journal of High Energy Physics, 2013, 2013, 1.	4.7	51

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19	Measurement of the fragmentation of Carbon nuclei used in hadron-therapy. Nuclear Physics A, 2011, 853, 124-134.	1.5	50
20	Momentum measurement by the angular method in the Emulsion Cloud Chamber. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 512, 539-545.	1.6	46
21	High precision measurements with nuclear emulsions using fast automated microscopes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 554, 247-254.	1.6	46
22	Study of neutrino interactions with the electronic detectors of the OPERA experiment. New Journal of Physics, 2011, 13, 053051.	2.9	44
23	The detection of neutrino interactions in the emulsion/lead target of the OPERA experiment. Journal of Instrumentation, 2009, 4, P06020-P06020.	1.2	41
24	The FEDRA "Framework for emulsion data reconstruction and analysis in the OPERA experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 559, 103-105.	1.6	39
25	A new generation scanning system for the high-speed analysis of nuclear emulsions. Journal of Instrumentation, 2016, 11, P06002-P06002.	1.2	39
26	Observation of tau neutrino appearance in the CNGS beam with the OPERA experiment. Progress of Theoretical and Experimental Physics, 2014, 2014, 101C01-101C01.	6.6	37
27	A new fast scanning system for the measurement of large angle tracks in nuclear emulsions. Journal of Instrumentation, 2015, 10, P11006-P11006.	1.2	36
28	Search for $\bar{\nu}_\mu \rightarrow \bar{\nu}_\tau$ oscillation using the $\bar{\nu}_\mu$ decay modes into a single charged particle. This paper is dedicated to the memory of Yasushi Ishii, a bright colleague and a good friend, whose loss has caused us great sorrow. 1. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 434, 205-213.	4.1	34
29	Procedure for short-lived particle detection in the OPERA experiment and its application to charm decays. European Physical Journal C, 2014, 74, 1.	3.9	31
30	Leading order analysis of neutrino induced dimuon events in the CHORUS experiment. Nuclear Physics B, 2008, 798, 1-16.	2.5	30
31	The Continuous Motion Technique for a New Generation of Scanning Systems. Scientific Reports, 2017, 7, 7310.	3.3	28
32	Discovery potential for directional Dark Matter detection with nuclear emulsions. European Physical Journal C, 2018, 78, 1.	3.9	27
33	Measurement of the atmospheric muon charge ratio with the OPERA detector. European Physical Journal C, 2010, 67, 25-37.	3.9	26
34	Intrinsic neutron background of nuclear emulsions for directional Dark Matter searches. Astroparticle Physics, 2016, 80, 16-21.	4.3	25
35	Measurement of $D_0$ production in neutrino charged-current interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 527, 173-181.	4.1	22
36	Measurements of $\nu_\mu \rightarrow \nu_\tau$ oscillation using the $\nu_\mu$ decay modes into a single charged particle. This paper is dedicated to the memory of Yasushi Ishii, a bright colleague and a good friend, whose loss has caused us great sorrow. 1. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 434, 205-213.	4.1	21

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37	Measurement of topological muonic branching ratios of charmed hadrons produced in neutrino-induced charged-current interactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2005, 626, 24-34.	4.1	21
38	Measurement of the neutrino velocity with the OPERA detector in the CNGS beam using the 2012 dedicated data. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	21
39	Measurement of the TeV atmospheric muon charge ratio with the complete OPERA data set. <i>European Physical Journal C</i> , 2014, 74, 1.	3.9	21
40	A high-resolution detector based on liquid-core scintillating fibres with readout via an electron-bombarded charge-coupled device. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1994, 339, 449-455.	1.6	20
41	The active muon shield in the SHiP experiment. <i>Journal of Instrumentation</i> , 2017, 12, P05011-P05011.	1.2	20
42	Development of large-volume, high-resolution tracking detectors based on capillaries filled with liquid scintillator. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1995, 360, 7-12.	1.6	18
43	Observation of neutrino induced diffractive production and subsequent decay. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1998, 435, 458-464.	4.1	18
44	Measurement of $\bar{\nu}_c$ production in neutrino charged-current interactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2003, 555, 156-166.	4.1	18
45	Emulsion Cloud Chamber technique to measure the fragmentation of a high-energy carbon beam. <i>Journal of Instrumentation</i> , 2007, 2, P06004-P06004.	1.2	18
46	Search for $\nu_{\tau} \rightarrow \nu_{\mu}$ oscillation with the OPERA experiment in the CNGS beam. <i>New Journal of Physics</i> , 2012, 14, 033017.	2.9	18
47	Observation of one event with the characteristics of associated charm production in neutrino charged-current interactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2002, 539, 188-196.	4.1	17
48	Limits on muon-neutrino to tau-neutrino oscillations induced by a sterile neutrino state obtained by OPERA at the CNGS beam. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	17
49	Muon radiography method for fundamental and applied research. <i>Physics-Uspekhi</i> , 2017, 60, 1277-1293.	2.2	17
50	A Novel Optical Scanning Technique with an Inclined Focusing Plane. <i>Scientific Reports</i> , 2019, 9, 2870.	3.3	17
51	Studies of the response of the prototype CMS hadron calorimeter, including magnetic field effects, to pion, electron, and muon beams. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2001, 457, 75-100.	1.6	16
52	Electron/pion separation with an Emulsion Cloud Chamber by using a Neural Network. <i>Journal of Instrumentation</i> , 2007, 2, P02001-P02001.	1.2	16
53	High-speed analysis of nuclear emulsion films with the use of dry objective lenses. <i>Journal of Instrumentation</i> , 2008, 3, P04006-P04006.	1.2	16
54	Muography with nuclear emulsions - Stromboli and other projects. <i>Annals of Geophysics</i> , 2017, 60, .	1.0	16

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55	Cross-section measurement for quasi-elastic production of charmed baryons in $\hat{1}/2N$ interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 575, 198-207.	4.1	15
56	Atmospheric muon flux measurements at the external site of the Gran Sasso Lab. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 525, 485-495.	1.6	15
57	Final results of the search for $\hat{1}/2\hat{1}/4 \hat{\nu} \hat{\nu}^* \hat{1}/2e$ oscillations with the OPERA detector in the CNGS beam. Journal of High Energy Physics, 2018, 2018, 1.	4.7	15
58	Determination of the semi-leptonic branching fraction of charm hadrons produced in neutrino charged-current interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 549, 48-57.	4.1	14
59	A novel approach for fast scanning of nuclear emulsions with continuous motion of the microscope stage. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 718, 184-185.	1.6	13
60	An integrated system for large scale scanning of nuclear emulsions. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 703, 204-212.	1.6	13
61	Measurement of fragmentation properties of charmed particle production in charged-current neutrino interactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 604, 145-156.	4.1	12
62	Charged-particle multiplicities in charged-current neutrino and anti-neutrino nucleus interactions. European Physical Journal C, 2007, 51, 775.	3.9	12
63	Measurement of the cosmic ray muon flux seasonal variation with the OPERA detector. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 003-003.	5.4	12
64	Super-resolution high-speed optical microscopy for fully automated readout of metallic nanoparticles and nanostructures. Scientific Reports, 2020, 10, 18773.	3.3	12
65	High-resolution tracking using large capillary bundles filled with liquid scintillator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 449, 60-80.	1.6	11
66	Observation of weak neutral current neutrino production of $J/\psi$ . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 503, 1-9.	4.1	11
67	Study of the effects induced by lead on the emulsion films of the OPERA experiment. Journal of Instrumentation, 2008, 3, P07002-P07002.	1.2	11
68	Further progress for a fast scanning of nuclear emulsions with Large Angle Scanning System. Journal of Instrumentation, 2014, 9, C02034-C02034.	1.2	11
69	Measurement of large angle fragments induced by 400 MeV carbon ion beams. Measurement Science and Technology, 2015, 26, 094001.	2.6	11
70	High resolution tracking detector based on capillaries with a liquid scintillator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1991, 310, 479-484.	1.6	10
71	Associated charm production in neutrino nucleus interactions. European Physical Journal C, 2007, 52, 543-552.	3.9	10
72	Determination of a time-shift in the OPERA set-up using high-energy horizontal muons in the LVD and OPERA detectors. European Physical Journal Plus, 2012, 127, 1.	2.6	10

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73	Study of charged hadron multiplicities in charged-current neutrino lead interactions in the OPERA detector. <i>European Physical Journal C</i> , 2018, 78, 1.	3.9	9
74	Ion charge separation with new generation of nuclear emulsion films. <i>Open Physics</i> , 2019, 17, 233-240.	1.7	9
75	Final results on neutrino oscillation parameters from the OPERA experiment in the CNGS beam. <i>Physical Review D</i> , 2019, 100, .	4.7	9
76	A tracking detector based on capillaries with liquid scintillator. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1992, 317, 97-100.	1.6	8
77	Experimental results from a large volume active target made of glass capillaries and liquid scintillator. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1995, 367, 377-383.	1.6	8
78	Experimental study of trimuon events in neutrino charged-current interactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2004, 596, 44-53.	4.1	8
79	$\mu$ on Radiography Method for Non-Invasive Probing an Archaeological Site in the Naryn-Kala Citadel. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2040.	4.1	8
80	Development and characterization of $\alpha$ E-TOF detector prototype for the FOOT experiment. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2019, 916, 116-124.	2.5	8
81	A new vertex detector made of glass capillaries. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1997, 386, 72-80.	1.6	7
82	Measurement of the Z/A dependence of neutrino charged-current total cross-sections. <i>European Physical Journal C</i> , 2003, 30, 159-167.	3.9	7
83	Measurement of charm production in antineutrino charged-current interactions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2004, 604, 11-21.	4.1	7
84	Nuclear emulsions as a very high resolution detector for directional dark matter search. <i>Journal of Instrumentation</i> , 2014, 9, C01043-C01043.	1.2	7
85	Test Experiments on muon radiography with emulsion track detectors in Russia. <i>Physics of Particles and Nuclei Letters</i> , 2015, 12, 713-719.	0.4	7
86	Muography of 1949 fault in La Palma, Canary Islands, Spain. <i>Annals of Geophysics</i> , 2017, 60, .	1.0	7
87	Search for weakly interacting massive dark matter particles: state of the art and prospects. <i>Physics-Uspekh</i> , 2021, 64, 861-889.	2.2	7
88	Addendum: search for $\nu_{\mu} \rightarrow \nu_{\tau}$ oscillations with the OPERA experiment in the CNGS beam. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	6
89	A novel approach to dark matter search based on nanometric emulsions. <i>Journal of Instrumentation</i> , 2014, 9, C12053-C12053.	1.2	6
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91	Muon radiography in Russia with emulsion technique. First experiments future perspectives. AIP Conference Proceedings, 2015, , .	0.4	6
92	Development of a super-resolution optical microscope for directional dark matter search experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 824, 600-602.	1.6	6
93	Charge identification of fragments with the emulsion spectrometer of the FOOT experiment. Open Physics, 2021, 19, 383-394.	1.7	6
94	Measurements of $^{12}\text{C}$ ions beam fragmentation at large angle with an Emulsion Cloud Chamber. Journal of Instrumentation, 2017, 12, P08013-P08013.	1.2	5
95	The Drift Chamber detector of the FOOT experiment: Performance analysis and external calibration. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 986, 164756.	1.6	5
96	Study of capillary tracking detectors with position-sensitive photomultiplier readout. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 361, 129-137.	1.6	4
97	Measurement of low-energy neutrino cross-sections with the PEANUT experiment. New Journal of Physics, 2010, 12, 113028.	2.9	4
98	Improving the detection efficiency in nuclear emulsion trackers. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 776, 45-49.	1.6	4
99	Muonography of Large Natural and Industrial Objects. Physics of Atomic Nuclei, 2019, 82, 897-901.	0.4	4
100	Experiments on muon radiography with emulsion track detectors. EPJ Web of Conferences, 2016, 125, 02022.	0.3	3
101	First observation of a tau neutrino charged current interaction with charm production in the OPERA experiment. European Physical Journal C, 2020, 80, 1.	3.9	3
102	Nuclear emulsion techniques for muography. Annals of Geophysics, 2017, 60, .	1.0	3
103	A fast automatic plate changer for the analysis of nuclear emulsions. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 716, 96-100.	1.6	2
104	Test Experiments on Muon Radiography with Emulsion Track Detectors in Russia. Physics Procedia, 2015, 80, 78-80.	1.2	2
105	Determination of the muon charge sign with the dipolar spectrometers of the OPERA experiment. Journal of Instrumentation, 2016, 11, P07022-P07022.	1.2	2
106	High-resolution tracking in a GEM-emulsion detector. Journal of Instrumentation, 2017, 12, P09001-P09001.	1.2	2
107	Search for superfragments and measurement of the production of hyperfragments in neutrino-nucleus interactions. Nuclear Physics B, 2005, 718, 35-54.	2.5	1
108	High speed automated microtomography of nuclear emulsions and recent application. AIP Conference Proceedings, 2015, , .	0.4	1

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109	GPU applications for data processing. AIP Conference Proceedings, 2015, , .	0.4	1
110	Latest results of the OPERA experiment on nu-tau appearance in the CNGS neutrino beam. , 2019, , .		1
111	The OPERA experiment. Nuclear and Particle Physics Proceedings, 2015, 267-269, 87-93.	0.5	0
112	Current status and prospects of nuclear physics research based on tracking techniques. Journal of Physics: Conference Series, 2017, 798, 012207.	0.4	0
113	Status and results of the OPERA experiment. , 2012, , .		0