

# Piero Vicini

## List of Publications by Year in descending order

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147  
papers

2,078  
citations

304602

22  
h-index

265120

42  
g-index

150  
all docs

150  
docs citations

150  
times ranked

1946  
citing authors

#	ARTICLE	IF	CITATIONS
1	EuroEXA Custom Switch: an innovative FPGA-based system for extreme scale computing in Europe. EPJ Web of Conferences, 2020, 245, 09004.	0.1	3
2	$K^+ \rightarrow \pi^+ u \bar{u}$ Decay and NP Searches at NA62. Acta Physica Polonica B, Proceedings Supplement, 2020, 13, 95.	0.0	0
3	The integrated low-level trigger and readout system of the CERN NA62 experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 929, 1-22.	0.7	32
4	Search for production of an invisible dark photon in $\tilde{\chi}_0^0$ decays. Journal of High Energy Physics, 2019, 2019, 1.	1.6	40
5	Real-Time Cortical Simulations: Energy and Interconnect Scaling on Distributed Systems. , 2019, , .		1
6	First search for $K^+ \rightarrow \pi^+ \tilde{\chi}_0^0$ decays. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 791, 156-166.	1.5	48
7	Search for heavy neutrinos at the NA48/2 and NA62 experiments at CERN. EPJ Web of Conferences, 2018, 182, 02095.	0.1	0
8	Search for $K^+ \rightarrow \pi^+ \tilde{\chi}_0^0$ at NA62. EPJ Web of Conferences, 2018, 182, 02002.	0.1	0
9	Real-time heterogeneous stream processing with NaNet in the NA62 experiment. Journal of Physics: Conference Series, 2018, 1085, 032022.	0.3	3
10	Search for heavy neutral leptons at the NA62 experiment at CERN. International Journal of Modern Physics A, 2018, 33, 1844026.	0.5	1
11	NA62 and NA48/2 results on search for Heavy Neutral Leptons. EPJ Web of Conferences, 2018, 179, 01009.	0.1	0
12	Next generation of Exascale-class systems: ExaNeSt project and the status of its interconnect and storage development. Microprocessors and Microsystems, 2018, 61, 58-71.	1.8	17
13	Gaussian and Exponential Lateral Connectivity on Distributed Spiking Neural Network Simulation. , 2018, , .		6
14	Search for heavy neutral lepton production in $K^+$ decays. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 778, 137-145.	1.5	49
15	$K_{l3}$ Form Factors with NA48/2 and NA62 Status. Acta Physica Polonica B, Proceedings Supplement, 2018, 11, 617.	0.0	0
16	Search for $K^+ \rightarrow \pi^+ \nu \bar{\nu}$ at NA62. KnE Energy, 2018, 3, 372.	0.3	1
17	Search for $K^+ \rightarrow \pi^+ \nu \bar{\nu}$ at NA62. , 2018, , .		0
18	Search for $K^+ \rightarrow \pi^+ u \bar{u}$ at NA62. , 2018, , .		0

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19	The kaon identification system in the NA62 experiment at the CERN SPS. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 845, 443-446.	0.7	2
20	Real-time track-less Cherenkov ring fitting trigger system based on Graphics Processing Units. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 876, 115-118.	0.7	1
21	Development of Network Interface Cards for TRIDAQ systems with the NaNet framework. Journal of Instrumentation, 2017, 12, C03037-C03037.	0.5	1
22	GPU-based low-level trigger system for the standalone reconstruction of the ring-shaped hit patterns in the RICH Cherenkov detector of NA62 experiment. Journal of Instrumentation, 2017, 12, C03005-C03005.	0.5	0
23	Search for $K \rightarrow \pi^0 \ell^+ \ell^-$ decays. Nuclear and Particle Physics Proceedings, 2017, 282-284, 101-105.		
24	Recent results and prospects for NA62 experiment. Nuclear and Particle Physics Proceedings, 2017, 285-286, 104-109.	0.2	1
25	Inertial bioluminescence rhythms at the Capo Passero (KM3NeT-Italia) site, Central Mediterranean Sea. Scientific Reports, 2017, 7, 44938.	1.6	12
26	Intrinsic limits on resolutions in muon- and electron-neutrino charged-current events in the KM3NeT/ORCA detector. Journal of High Energy Physics, 2017, 2017, 1.	1.6	22
27	Graphical processors for HEP trigger systems. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 845, 612-615.	0.7	0
28	The beam and detector of the NA62 experiment at CERN. Journal of Instrumentation, 2017, 12, P05025-P05025.	0.5	115
29	Low latency network and distributed storage for next generation HPC systems: the ExaNeSt project. Journal of Physics: Conference Series, 2017, 898, 082045.	0.3	0
30	The Next Generation of Exascale-Class Systems: The ExaNeSt Project. , 2017, , .		8
31	Latest generation interconnect technologies in APEnet+ networking infrastructure. Journal of Physics: Conference Series, 2017, 898, 082035.	0.3	0
32	Prospects for exotics and LFV at NA62. Journal of Physics: Conference Series, 2017, 800, 012039.	0.3	3
33	Status of the CERN NA62 Experiment. Journal of Physics: Conference Series, 2017, 800, 012023.	0.3	5
34	Power-Efficient Computing: Experiences from the COSA Project. Scientific Programming, 2017, 2017, 1-14.	0.5	6
35	GPU real-time processing in NA62 trigger system. Journal of Physics: Conference Series, 2017, 800, 012046.	0.3	0
36	The NA62 experiment at CERN. Journal of Physics: Conference Series, 2017, 873, 012015.	0.3	3

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37	PROMOTING THE PHYSICS LABORATORY WITH LAB2GO. EDULEARN Proceedings, 2017, , .	0.0	2
38	NA48/62 latest results. , 2017, , .		0
39	New limits on heavy neutrinos from NA62. , 2017, , .		0
40	KM3NeT tower data acquisition and data transport electronics. EPJ Web of Conferences, 2016, 116, 05011.	0.1	0
41	Graphics Processors in HEP Low-Level Trigger Systems. EPJ Web of Conferences, 2016, 127, 00011.	0.1	0
42	Search for $K \rightarrow \pi^0 \ell^+ \ell^-$ at the NA62 experiment. EPJ Web of Conferences, 2016, 130, 06001.	0.1	0
43	NaNet3: The on-shore readout and slow-control board for the KM3NeT-Italia underwater neutrino telescope. EPJ Web of Conferences, 2016, 116, 05008.	0.1	2
44	Measurement of the atmospheric muon flux at 3500 m depth with the NEMO Phase-2 detector. EPJ Web of Conferences, 2016, 121, 05015.	0.1	0
45	The neutral pion form factor at NA62. Journal of Physics: Conference Series, 2016, 770, 012035.	0.3	0
46	Recent results and prospects from NA62. EPJ Web of Conferences, 2016, 129, 00046.	0.1	0
47	A method to stabilise the performance of negatively fed KM3NeT photomultipliers. Journal of Instrumentation, 2016, 11, P12014-P12014.	0.5	8
48	Letter of intent for KM3NeT 2.0. Journal of Physics G: Nuclear and Particle Physics, 2016, 43, 084001.	1.4	512
49	The ExaNeSt Project: Interconnects, Storage, and Packaging for Exascale Systems. , 2016, , .		28
50	NaNet-10: a 10GbE network interface card for the GPU-based low-level trigger of the NA62 RICH detector.. Journal of Instrumentation, 2016, 11, C03030-C03030.	0.5	12
51	The prototype detection unit of the KM3NeT detector. European Physical Journal C, 2016, 76, 1.	1.4	32
52	Long term monitoring of the optical background in the Capo Passero deep-sea site with the NEMO tower prototype. European Physical Journal C, 2016, 76, 1.	1.4	11
53	Graphics Processing Units for HEP trigger systems. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 824, 307-310.	0.7	0
54	Dynamic many-process applications on many-tile embedded systems and HPC clusters: The EURETILE programming environment and execution platforms. Journal of Systems Architecture, 2016, 69, 29-53.	2.5	10

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55	NaNet: Design of FPGA-based network interface cards for real-time trigger and data acquisition systems in HEP experiments. , 2015, , .		1
56	Architectural improvements and technological enhancements for the APENet+ interconnect system. Journal of Instrumentation, 2015, 10, C02005-C02005.	0.5	5
57	Hardware and Software Design of FPGA-based PCIe Gen3 interface for APENet+ network interconnect system. Journal of Physics: Conference Series, 2015, 664, 092017.	0.3	5
58	GPU-based Low-Level Trigger System for Real-Time Cherenkov Ring Fitting. , 2015, , .		0
59	A multi-port 10GbE PCIe NIC featuring UDP offload and GPUDirect capabilities.. Journal of Physics: Conference Series, 2015, 664, 092002.	0.3	3
60	NaNet: a configurable NIC bridging the gap between HPC and real-time HEP GPU computing. Journal of Instrumentation, 2015, 10, C04011-C04011.	0.5	14
61	ASIP acceleration for virtual-to-physical address translation on RDMA-enabled FPGA-based network interfaces. Future Generation Computer Systems, 2015, 53, 109-118.	4.9	3
62	Measurement of the atmospheric muon depth intensity relation with the NEMO Phase-2 tower. Astroparticle Physics, 2015, 66, 1-7.	1.9	21
63	A hierarchical watchdog mechanism for systemic fault awareness on distributed systems. Future Generation Computer Systems, 2015, 53, 90-99.	4.9	7
64	GPUs for real-time processing in HEP trigger systems. Journal of Physics: Conference Series, 2014, 513, 012017.	0.3	1
65	GPUs for real-time processing in HEP trigger systems. Journal of Physics: Conference Series, 2014, 523, 012007.	0.3	3
66	Many-core applications to online track reconstruction in HEP experiments. Journal of Physics: Conference Series, 2014, 513, 012002.	0.3	0
67	NaNet: a flexible and configurable low-latency NIC for real-time trigger systems based on GPUs. Journal of Instrumentation, 2014, 9, C02023-C02023.	0.5	22
68	Analysis of performance improvements for host and GPU interface of the APENet+ 3D Torus network. Journal of Physics: Conference Series, 2014, 523, 012013.	0.3	0
69	Underwater acoustic positioning system for the SMO and KM3NeT - Italia projects. , 2014, , .		3
70	Long-term optical background measurements in the Capo Passero deep-sea site. , 2014, , .		1
71	The trigger and data acquisition for the NEMO-Phase 2 tower. , 2014, , .		3
72	Architectural improvements and 28 nm FPGA implementation of the APENet+ 3D Torus network for hybrid HPC systems. Journal of Physics: Conference Series, 2014, 513, 052002.	0.3	0

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73	LO-FA-MO: Fault Detection and Systemic Awareness for the QUonG Computing System. , 2014, , .		1
74	EURETILE Design Flow: Dynamic and Fault Tolerant Mapping of Multiple Applications Onto Many-Tile Systems. , 2014, , .		4
75	Status and first results of the NEMO Phase-2 tower. Journal of Instrumentation, 2014, 9, C03045-C03045.	0.5	7
76	NaNet: a low-latency NIC enabling GPU-based, real-time low level trigger systems. Journal of Physics: Conference Series, 2014, 513, 012018.	0.3	4
77	Design and implementation of a modular, low latency, fault-aware, FPGA-based network interface. , 2013, , .		5
78	Virtual-to-Physical address translation for an FPGA-based interconnect with host and GPU remote DMA capabilities. , 2013, , .		13
79	GPU Peer-to-Peer Techniques Applied to a Cluster Interconnect. , 2013, , .		27
80	The GAP project - GPU for realtime applications in high energy physics and medical imaging. , 2013, , .		0
81	Applications of many-core technologies to on-line event reconstruction in High Energy Physics experiments. , 2013, , .		0
82	The optical modules of the phase-2 of the NEMO project. Journal of Instrumentation, 2013, 8, P07001-P07001.	0.5	8
83	APENet+ 34 Gbps data transmission system and custom transmission logic. Journal of Instrumentation, 2013, 8, C12022-C12022.	0.5	17
84	Applications of GPUs to online track reconstruction in HEP experiments. , 2012, , .		2
85	APENet+: a 3D Torus network optimized for GPU-based HPC Systems. Journal of Physics: Conference Series, 2012, 396, 042059.	0.3	33
86	A 34 Gbps data transmission system with FPGAs embedded transceivers and QSFP+ modules. , 2012, , .		2
87	APENet+ project status. , 2012, , .		1
88	QUonG: A GPU-based HPC System Dedicated to LQCD Computing. , 2011, , .		12
89	Natrium: Use of FPGA embedded processors for real-time data compression. Journal of Instrumentation, 2011, 6, C12036-C12036.	0.5	5
90	APENet+: high bandwidth 3D torus direct network for petaflops scale commodity clusters. Journal of Physics: Conference Series, 2011, 331, 052029.	0.3	14

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91	The NEMO project: A status report. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 626-627, S25-S29.	0.7	19
92	apeNET+: a 3D toroidal network enabling petaFLOPS scale Lattice QCD simulations on commodity clusters. , 2011, , .		2
93	High-speed data transfer with FPGAs and QSFP+ modules. Journal of Instrumentation, 2010, 5, C12019-C12019.	0.5	3
94	Measurement of the atmospheric muon flux with the NEMO Phase-1 detector. Astroparticle Physics, 2010, 33, 263-273.	1.9	24
95	Procedures and results of the measurements on large area photomultipliers for the NEMO project. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 614, 206-212.	0.7	16
96	High speed data transfer with FPGAs and QSFP+modules. , 2010, , .		1
97	Recent results and perspectives of the NEMO project. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 602, 47-53.	0.7	22
98	Long-term measurements of acoustic background noise in very deep sea. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, S149-S157.	0.7	34
99	Status of NEMO: results from the NEMO Phase-1 detector. Nuclear Physics, Section B, Proceedings Supplements, 2009, 190, 109-114.	0.5	0
100	Synthesis of Communication Mechanisms for Multi-tile Systems Based on Heterogeneous Multi-processor System-On-Chips. , 2009, , .		1
101	Recent achievements of the NEMO project. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 588, 111-118.	0.7	50
102	The Data Acquisition and Transport Design for NEMO Phase 1. IEEE Transactions on Nuclear Science, 2008, 55, 233-240.	1.2	20
103	NEMO: A PROJECT FOR A KM3 UNDERWATER DETECTOR FOR ASTROPHYSICAL NEUTRINOS IN THE MEDITERRANEAN SEA. International Journal of Modern Physics A, 2007, 22, 3509-3520.	0.5	11
104	Timing calibration for the NEMO (NEutrino Mediterranean Observatory) prototype. , 2007, , .		0
105	Deep seawater inherent optical properties in the Southern Ionian Sea. Astroparticle Physics, 2007, 27, 1-9.	1.9	62
106	Sensitivity of an underwater $\check{A}$ Eerenkov km3 telescope to TeV neutrinos from Galactic microquasars. Astroparticle Physics, 2007, 28, 1-9.	1.9	20
107	SHAPES:. , 2006, , .		35
108	Computing for LQCD: apeNEXT. Computing in Science and Engineering, 2006, 8, 18-29.	1.2	20

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109	The apeNEXT project. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 559, 90-94.	0.7	1
110	Status of NEMO. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 567, 444-451.	0.7	35
111	The apeNEXT project. Nuclear Physics, Section B, Proceedings Supplements, 2005, 140, 176-182.	0.5	6
112	APENet: LQCD clusters Ã la APE. Nuclear Physics, Section B, Proceedings Supplements, 2005, 140, 826-828.	0.5	9
113	Status of the APENet project. , 2005, , .		1
114	NEMO: Status of the Project. Nuclear Physics, Section B, Proceedings Supplements, 2004, 136, 61-68.	0.5	14
115	apeNEXT: A Multi-TFlops computer for elementary particle physics. Advances in Parallel Computing, 2004, 13, 355-362.	0.3	0
116	Status of the apeNEXT project. Nuclear Physics, Section B, Proceedings Supplements, 2003, 119, 1038-1040.	0.5	6
117	The apeNEXT project. Nuclear Physics, Section B, Proceedings Supplements, 2002, 106-107, 173-176.	0.5	10
118	Status of APEmille. Nuclear Physics, Section B, Proceedings Supplements, 2002, 106-107, 1043-1045.	0.5	8
119	APE computersâ€™past, present and future. Computer Physics Communications, 2002, 147, 402-409.	3.0	4
120	Status of APE projects. Nuclear Physics, Section B, Proceedings Supplements, 2001, 94, 846-853.	0.5	3
121	Feasibility studies for a Mediterranean neutrino observatory â€™ the NEMO.RD Project. Nuclear Physics, Section B, Proceedings Supplements, 2000, 87, 433-435.	0.5	8
122	The teraflop supercomputer APEmille: architecture, software and project status report. Computer Physics Communications, 1998, 110, 216-219.	3.0	5
123	An overview of the APEmille project. Nuclear Physics, Section B, Proceedings Supplements, 1998, 60, 237-240.	0.5	5
124	Progress and status of APEmille. Nuclear Physics, Section B, Proceedings Supplements, 1998, 63, 991-993.	0.5	4
125	An overview of the APEmille parallel computer. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 389, 56-58.	0.7	7
126	The Teraflop parallel computer APEmille. Lecture Notes in Computer Science, 1997, , 991-993.	1.0	3



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127	A lattice study of the exclusive decay amplitude, using the Clover action at $\hat{\tau}^2 = 6.0$ . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 365, 275-284.	1.5	21
128	Polyakov loops and finite-size effects of hadron masses in full lattice QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 345, 49-54.	1.5	1
129	Lattice calculation of D- and B-meson semileptonic decays, using the clover action at $\hat{\tau}^2 = 6.0$ on APE. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 345, 513-523.	1.5	79
130	The new wave of the APE project: APEmille. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 17-20.	0.5	5
131	APE results of hadron masses in full QCD simulations. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 300-302.	0.5	0
132	$B \rightarrow \bar{t}^* K^* \hat{\tau}^3$ decay on APE. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 379-381.	0.5	0
133	Quenched BK-parameter with the Wilson and Clover actions at $\hat{\tau}^2 = 6.0$ . Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 397-399.	0.5	1
134	A high statistics lattice calculation of using the clover action. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 326, 295-302.	1.5	30
135	Light quark physics on different lattices. Nuclear Physics, Section B, Proceedings Supplements, 1994, 34, 360-362.	0.5	0
136	Decay constants of heavy-light mesons. Nuclear Physics, Section B, Proceedings Supplements, 1994, 34, 456-458.	0.5	3
137	D- and B-meson semi-leptonic decays. Nuclear Physics, Section B, Proceedings Supplements, 1994, 34, 477-479.	0.5	0
138	Status of APE100 and full QCD simulations. Nuclear Physics, Section B, Proceedings Supplements, 1994, 34, 826-829.	0.5	0
139	A high statistics lattice calculation of $\bar{K}^* B$ in the static limit on APE. Nuclear Physics B, 1994, 413, 461-480.	0.9	29
140	A high performance single chip processing unit for parallel processing and data acquisition systems. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1993, 324, 543-550.	0.7	1
141	Preliminary results from APE-100. Nuclear Physics, Section B, Proceedings Supplements, 1993, 30, 469-472.	0.5	3
142	THE APE-100 COMPUTER: (I) THE ARCHITECTURE. International Journal of High Speed Computing, 1993, 05, 637-656.	0.2	54
143	LBE SIMULATIONS OF RAYLEIGH-BÉNARD CONVECTION ON THE APE100 PARALLEL PROCESSOR. International Journal of Modern Physics C, 1993, 04, 993-1006.	0.8	65
144	A HARDWARE IMPLEMENTATION OF THE APE100 ARCHITECTURE. International Journal of Modern Physics C, 1993, 04, 969-976.	0.8	36

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145	THE SOFTWARE OF THE APE100 PROCESSOR. International Journal of Modern Physics C, 1993, 04, 955-967.	0.8	32
146	The APE100 project. AIP Conference Proceedings, 1990, , .	0.3	1
147	APENet: a high speed, low latency 3D interconnect network. , 0, , .		2