

Deep Learning and Its Application to LHC Physics

Annual Review of Nuclear and Particle Science

68, 161-181

DOI: [10.1146/annurev-nucl-101917-021019](https://doi.org/10.1146/annurev-nucl-101917-021019)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Data-driven deconvolution for large eddy simulations of Kraichnan turbulence. <i>Physics of Fluids</i> , 2018, 30, 125109.	1.6	72
2	Reducing model bias in a deep learning classifier using domain adversarial neural networks in the MINERvA experiment. <i>Journal of Instrumentation</i> , 2018, 13, P11020-P11020.	0.5	20
3	Universal relations in composite Higgs models. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	12
4	Heavy neutrinos with dynamic jet vetoes: multilepton searches at $\sqrt{s}=14$, 27, and 100 TeV. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	62
5	Anthropogenic Marine Debris assessment with Unmanned Aerial Vehicle imagery and deep learning: A case study along the beaches of the Republic of Maldives. <i>Science of the Total Environment</i> , 2019, 693, 133581.	3.9	111
6	Learning representations of irregular particle-detector geometry with distance-weighted graph networks. <i>European Physical Journal C</i> , 2019, 79, 1.	1.4	78
7	Nonexotic-exotic bipartite mode entanglements of an SU(3) baryon. <i>Nuclear Physics A</i> , 2019, 989, 97-116.	0.6	1
8	QCD-aware recursive neural networks for jet physics. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	93
9	Perspectives and outlook from HEP window on the universe. <i>International Journal of Modern Physics A</i> , 2019, 34, 1930002.	0.5	6
10	Energy flow networks: deep sets for particle jets. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	147
11	Imaging particle collision data for event classification using machine learning. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2019, 931, 92-99.	0.7	6
12	Supporting High-Performance and High-Throughput Computing for Experimental Science. <i>Computing and Software for Big Science</i> , 2019, 3, 1.	1.3	9
13	From the bottom to the top—reconstruction of $t\bar{t}$, events with deep learning. <i>Journal of Instrumentation</i> , 2019, 14, P11015-P11015.	0.5	10
14	The Particle Track Reconstruction based on deep Neural networks. <i>EPJ Web of Conferences</i> , 2019, 214, 06018.	0.1	2
15	Calculating pull for non-singlet jets. <i>Journal of High Energy Physics</i> , 2019, 2019, 1.	1.6	3
16	Early experiences on Summit: Data analytics and AI applications. <i>IBM Journal of Research and Development</i> , 2019, 63, 2:1-2:9.	3.2	5
17	Machine learning-based predictions of directionality and charge of cosmic muons—a simulation study using the mICAL detector. <i>Journal of Instrumentation</i> , 2019, 14, P11020-P11020.	0.5	4
18	Machine learning classification: Case of Higgs boson CP state in $H \rightarrow \tau^+ \tau^-$ decay at the LHC. <i>Physical Review D</i> , 2019, 100, .	1.6	4

#	ARTICLE	IF	CITATIONS
19	Machine learning and the physical sciences. <i>Reviews of Modern Physics</i> , 2019, 91, .	16.4	1,245
20	Jet substructure at the Large Hadron Collider: A review of recent advances in theory and machine learning. <i>Physics Reports</i> , 2020, 841, 1-63.	10.3	230
21	PulseDL: A reconfigurable deep learning array processor dedicated to pulse characterization for high energy physics detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2020, 978, 164420.	0.7	5
22	Application of Deep Learning Algorithm in Feature Mining and Rapid Identification of Colorectal Image. <i>IEEE Access</i> , 2020, 8, 128830-128844.	2.6	1
23	Learning the latent structure of collider events. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	1.6	41
24	Transferability of deep learning models in searches for new physics at colliders. <i>Physical Review D</i> , 2020, 101, .	1.6	19
25	Object condensation: one-stage grid-free multi-object reconstruction in physics detectors, graph, and image data. <i>European Physical Journal C</i> , 2020, 80, 1.	1.4	17
26	Simulation assisted likelihood-free anomaly detection. <i>Physical Review D</i> , 2020, 101, .	1.6	78
27	Application of Deep Learning in the Prediction of Benign and Malignant Thyroid Nodules on Ultrasound Images. <i>IEEE Access</i> , 2020, 8, 221468-221480.	2.6	5
29	Power-law scaling to assist with key challenges in artificial intelligence. <i>Scientific Reports</i> , 2020, 10, 19628.	1.6	9
30	Spectral reconstruction with deep neural networks. <i>Physical Review D</i> , 2020, 102, .	1.6	26
31	Event reconstruction for KM3NeT/ORCA using convolutional neural networks. <i>Journal of Instrumentation</i> , 2020, 15, P10005-P10005.	0.5	15
32	Fast convolutional neural networks for identifying long-lived particles in a high-granularity calorimeter. <i>Journal of Instrumentation</i> , 2020, 15, P12006-P12006.	0.5	9
33	A fast centrality-meter for heavy-ion collisions at the CBM experiment. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020, 811, 135872.	1.5	28
34	Covariantizing phase space. <i>Physical Review D</i> , 2020, 102, .	1.6	4
35	Fast inference of Boosted Decision Trees in FPGAs for particle physics. <i>Journal of Instrumentation</i> , 2020, 15, P05026-P05026.	0.5	37
36	Higgs boson production cross-section measurements and their EFT interpretation in the 4ℓ decay channel at $\sqrt{s} = 13\text{ TeV}$ with the ATLAS detector. <i>European Physical Journal C</i> , 2020, 80, 1.	1.4	41
37	Interaction networks for the identification of boosted $H \rightarrow b\bar{b}$ decays. <i>Physical Review D</i> , 2020, 102, .	1.6	37

#	ARTICLE	IF	CITATIONS
38	Supervised jet clustering with graph neural networks for Lorentz boosted bosons. Physical Review D, 2020, 102, .	1.6	23
39	Searching for new physics with deep autoencoders. Physical Review D, 2020, 101, .	1.6	117
40	A tagger for strange jets based on tracking information using long short-term memory. Journal of Instrumentation, 2020, 15, P01021-P01021.	0.5	7
41	Learning pairing symmetries in disordered superconductors using spin-polarized local density of states. New Journal of Physics, 2020, 22, 053015.	1.2	1
42	Generalized Sparse Convolutional Neural Networks for Semantic Segmentation of Point Clouds Derived from Tri-Stereo Satellite Imagery. Remote Sensing, 2020, 12, 1289.	1.8	12
43	Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. International Journal of Information Management, 2021, 57, 101994.	10.5	939
45	The Impact of Aggregation Window Width on Properties of Contextual Neural Networks with Constant Field of Attention. Lecture Notes in Computer Science, 2021, , 731-742.	1.0	0
46	Advances in Machine and Deep Learning for Modeling and Real-Time Detection of Multi-messenger Sources. , 2021, , 1-27.		3
47	Contextual Soft Dropout Method in Training of Artificial Neural Networks. Lecture Notes in Computer Science, 2021, , 692-703.	1.0	1
48	Graph neural networks in particle physics. Machine Learning: Science and Technology, 2021, 2, 021001.	2.4	87
49	Making Science with Machine Learning and XAI. , 2021, , 143-164.		0
50	Deep Learning Based Impact Parameter Determination for the CBM Experiment. Particles, 2021, 4, 47-52.	0.5	7
51	Deep neural network application: Higgs boson CP state mixing angle in $H \rightarrow \tau^+ \tau^-$ decay and at the LHC. Physical Review D, 2021, 103, .	1.6	2
52	Mapping machine-learned physics into a human-readable space. Physical Review D, 2021, 103, .	1.6	27
53	Casting a graph net to catch dark showers. SciPost Physics, 2021, 10, .	1.5	34
54	Automating the ABCD method with machine learning. Physical Review D, 2021, 103, .	1.6	23
55	A Linear Frequency Principle Model to Understand the Absence of Overfitting in Neural Networks. Chinese Physics Letters, 2021, 38, 038701.	1.3	8
56	ThickBrick: optimal event selection and categorization in high energy physics. Part I. Signal discovery. Journal of High Energy Physics, 2021, 2021, 1.	1.6	3

#	ARTICLE	IF	CITATIONS
57	Quantum machine learning in high energy physics. Machine Learning: Science and Technology, 2021, 2, 011003.	2.4	50
58	Deep Learning Image Feature Recognition Algorithm for Judgment on the Rationality of Landscape Planning and Design. Complexity, 2021, 2021, 1-15.	0.9	4
59	Enhancing searches for resonances with machine learning and moment decomposition. Journal of High Energy Physics, 2021, 2021, 1.	1.6	9
60	Unsupervised outlier detection in heavy-ion collisions. Physica Scripta, 2021, 96, 064003.	1.2	21
61	GPU coprocessors as a service for deep learning inference in high energy physics. Machine Learning: Science and Technology, 2021, 2, 035005.	2.4	11
62	Modeling laser-driven ion acceleration with deep learning. Physics of Plasmas, 2021, 28, .	0.7	19
63	Modified empirical formulas and machine learning for $\hat{\Gamma}_{\pm}$ -decay systematics. Journal of Physics G: Nuclear and Particle Physics, 2021, 48, 055103.	1.4	19
64	Reconstructing boosted Higgs jets from event image segmentation. Journal of High Energy Physics, 2021, 2021, 1.	1.6	8
65	Method for Improving the Performance of Technical Analysis Indicators By Neural Network Models. Computational Economics, 2022, 59, 1027-1068.	1.5	5
66	Precision SMEFT bounds from the VBF Higgs at high transverse momentum. Journal of High Energy Physics, 2021, 2021, 1.	1.6	12
67	Adaptable Hamiltonian neural networks. Physical Review Research, 2021, 3, .	1.3	22
68	Learning from many collider events at once. Physical Review D, 2021, 103, .	1.6	17
69	Vertex and energy reconstruction in JUNO with machine learning methods. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2021, 1010, 165527.	0.7	25
70	Boosted Higgs boson jet reconstruction via a graph neural network. Physical Review D, 2021, 103, .	1.6	18
71	Learning Latent Jet Structure. Symmetry, 2021, 13, 1167.	1.1	4
72	Autoencoders for unsupervised anomaly detection in high energy physics. Journal of High Energy Physics, 2021, 2021, 1.	1.6	45
73	Inferring hidden symmetries of exotic magnets from detecting explicit order parameters. Physical Review E, 2021, 104, 015311.	0.8	3
74	A neural network classifier for electron identification on the DAMPE experiment. Journal of Instrumentation, 2021, 16, P07036.	0.5	5

#	ARTICLE	IF	CITATIONS
75	Neutral pion reconstruction using machine learning in the experiment at $\sqrt{s} = 6$ GeV. Journal of Instrumentation, 2021, 16, P07060.	0.5	0
76	Disentangling boosted Higgs Boson production modes with machine learning. Journal of Instrumentation, 2021, 16, P07002.	0.5	8
77	Semi-Supervised Learning Combining Backpropagation and STDP: STDP Enhances Learning by Backpropagation with a Small Amount of Labeled Data in a Spiking Neural Network. Journal of the Physical Society of Japan, 2021, 90, 074802.	0.7	4
78	A convolutional neural network based cascade reconstruction for the IceCube Neutrino Observatory. Journal of Instrumentation, 2021, 16, P07041.	0.5	29
79	Triggering on emerging jets. Physical Review D, 2021, 104, .	1.6	13
80	Simulation-assisted decorrelation for resonant anomaly detection. Physical Review D, 2021, 104, .	1.6	34
81	Characterizing the acceleration time of laser-driven ion acceleration with data-informed neural networks. Plasma Physics and Controlled Fusion, 2021, 63, 094005.	0.9	4
82	Mining for Gluon Saturation at Colliders. Universe, 2021, 7, 312.	0.9	52
83	Uncertainty-aware machine learning for high energy physics. Physical Review D, 2021, 104, .	1.6	24
84	Simulation and Optimization Studies of the LHCb Beetle Readout ASIC and Machine Learning Approach for Pulse Shape Reconstruction. Sensors, 2021, 21, 6075.	2.1	1
85	Neural network-featured timing systems for radiation detectors: performance evaluation based on bound analysis. Journal of Instrumentation, 2021, 16, P09019.	0.5	4
86	Higgs boson tagging with the Lund jet plane. Physical Review D, 2021, 104, .	1.6	16
87	Application of quantum machine learning using the quantum kernel algorithm on high energy physics analysis at the LHC. Physical Review Research, 2021, 3, .	1.3	35
88	Towards Layer-Wise Optimization of Contextual Neural Networks with Constant Field of Aggregation. Lecture Notes in Computer Science, 2021, , 743-753.	1.0	1
89	The use of Boosted Decision Trees for Energy Reconstruction in JUNO experiment. EPJ Web of Conferences, 2021, 251, 03014.	0.1	2
90	Stochastic Optimization of Contextual Neural Networks with RMSprop. Lecture Notes in Computer Science, 2020, , 343-352.	1.0	17
91	Soft Dropout Method in Training of Contextual Neural Networks. Lecture Notes in Computer Science, 2020, , 353-363.	1.0	2
92	The Impact of Constant Field of Attention on Properties of Contextual Neural Networks. Lecture Notes in Computer Science, 2020, , 364-375.	1.0	4

#	ARTICLE	IF	CITATIONS
93	Neural network-based top tagger with two-point energy correlations and geometry of soft emissions. Journal of High Energy Physics, 2020, 2020, 1.	1.6	19
94	Higgs self-coupling measurements using deep learning in the $\overline{b}\overline{b}$ final state. Journal of High Energy Physics, 2020, 2020, 1.	1.6	14
95	On the impact of selected modern deep-learning techniques to the performance and celerity of classification models in an experimental high-energy physics use case. Machine Learning: Science and Technology, 2020, 1, 045006.	2.4	3
96	Invisible Higgs search through vector boson fusion: a deep learning approach. European Physical Journal C, 2020, 80, 1.	1.4	12
97	Beyond $M_{\tau\tau}$: learning to search for a broad $\text{star}_{\tau\tau}$ resonance at the LHC. European Physical Journal C, 2020, 80, 1.	1.4	7
98	Convergence of artificial intelligence and high performance computing on NSF-supported cyberinfrastructure. Journal of Big Data, 2020, 7, .	6.9	22
99	Class imbalance techniques for high energy physics. SciPost Physics, 2019, 7, .	1.5	5
100	Mass agnostic jet taggers. SciPost Physics, 2020, 8, .	1.5	32
101	A guide for deploying Deep Learning in LHC searches: How to achieve optimality and account for uncertainty. SciPost Physics, 2020, 8, .	1.5	29
102	Multigap Resistive Plate Chambers for Time of Flight Applications. Applied Sciences (Switzerland), 2021, 11, 111.	1.3	8
103	An equation-of-state-meter for CBM using PointNet. Journal of High Energy Physics, 2021, 2021, 1.	1.6	11
104	iCYP-MFE: Identifying Human Cytochrome P450 Inhibitors Using Multitask Learning and Molecular Fingerprint-Embedded Encoding. Journal of Chemical Information and Modeling, 2022, 62, 5059-5068.	2.5	18
107	Artificial Intelligence for Monte Carlo Simulation in Medical Physics. Frontiers in Physics, 2021, 9, .	1.0	11
108	Statistical Issues in Particle Physics. , 2020, , 645-692.		0
109	Ontology, neural networks, and the social sciences. Synthèse, 2021, 199, 4775.	0.6	0
110	A Survey of Interpretability of Machine Learning in Accelerator-based High Energy Physics. , 2020, , .		2
111	Instrumental Perspectivism: Is AI Machine Learning Technology Like NMR Spectroscopy?. Human Perspectives in Health Sciences and Technology, 2020, , 27-42.	0.2	0
112	Machine-learning approach to finite-size effects in systems with strongly interacting fermions. Physical Review C, 2021, 104, .	1.1	7

#	ARTICLE	IF	CITATIONS
113	The LHC Olympics 2020 a community challenge for anomaly detection in high energy physics. Reports on Progress in Physics, 2021, 84, 124201.	8.1	70
114	Machine learning approach for the search of resonances with topological features at the Large Hadron Collider. International Journal of Modern Physics A, 0, , .	0.5	2
116	Machine learning applied to pattern characterization in spatially extended dynamical systems. Physica A: Statistical Mechanics and Its Applications, 2022, 592, 126823.	1.2	0
117	Accelerating GPU-based Machine Learning in Python using MPI Library: A Case Study with MVAICH2-GDR. , 2020, , .		0
118	The neutron star outer crust equation of state: a machine learning approach. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 045.	1.9	7
119	Introduction and Analysis of a Method for the Investigation of QCD-like Tree Data. Entropy, 2022, 24, 104.	1.1	1
120	A cautionary tale of decorrelating theory uncertainties. European Physical Journal C, 2022, 82, 1.	1.4	9
121	Potential and limitations of machine-learning approaches to inclusive $ V_{ub} $ determinations. Journal of High Energy Physics, 2022, 2022, 1.	1.6	0
123	Graph Neural Networks for Particle Tracking and Reconstruction. , 2022, , 387-436.		1
124	Energy-weighted message passing: an infra-red and collinear safe graph neural network algorithm. Journal of High Energy Physics, 2022, 2022, 1.	1.6	15
125	Probing Higgs boson exotic decays at the LHC with machine learning. Physical Review D, 2022, 105, .	1.6	4
127	Towards a method to anticipate dark matter signals with deep learning at the LHC. SciPost Physics, 2022, 12, .	1.5	4
128	Inverting cosmic ray propagation by convolutional neural networks. Journal of Cosmology and Astroparticle Physics, 2022, 2022, 044.	1.9	0
129	Boosted decision trees in the era of new physics: a smuon analysis case study. Journal of High Energy Physics, 2022, 2022, 1.	1.6	11
130	Lessons on interpretable machine learning from particle physics. Nature Reviews Physics, 2022, 4, 284-286.	11.9	15
131	Computational Acceleration of Topology Optimization Using Parallel Computing and Machine Learning Methods – Analysis of Research Trends. Journal of Industrial Information Integration, 2022, 28, 100352.	4.3	4
132	Deep neural networks to recover unknown physical parameters from oscillating time series. PLoS ONE, 2022, 17, e0268439.	1.1	1
133	A method for finding the background potential of quantum devices from scanning gate microscopy data using machine learning. Machine Learning: Science and Technology, 0, , .	2.4	2

#	ARTICLE	IF	CITATIONS
134	Modeling of charged-particle multiplicity and transverse-momentum distributions in pp collisions using a DNN. Scientific Reports, 2022, 12, 8449.	1.6	2
136	Renormalization-group-inspired neural networks for computing topological invariants. Physical Review B, 2022, 105, .	1.1	1
137	Metalearning and data augmentation for mass-generalized jet taggers. Physical Review D, 2022, 105, .	1.6	4
139	Novel approaches in hadron spectroscopy. Progress in Particle and Nuclear Physics, 2022, 127, 103981.	5.6	18
140	Influence of QCD parton showers in deep learning invisible Higgs bosons through vector boson fusion. Physical Review D, 2022, 105, .	1.6	2
141	Advances in Machine and Deep Learning for Modeling and Real-Time Detection of Multi-messenger Sources. , 2022, , 1793-1819.		0
142	Resolving combinatorial ambiguities in dilepton $t\bar{t}$ event topologies with neural networks. Physical Review D, 2022, 105, .	1.6	3
143	Leveraging universality of jet taggers through transfer learning. European Physical Journal C, 2022, 82, .	1.4	4
144	The Higgs boson turns ten. Nature, 2022, 607, 41-47.	13.7	6
145	High performance FPGA embedded system for machine learning based tracking and trigger in sPhenix and EIC. Journal of Instrumentation, 2022, 17, C07003.	0.5	2
146	Stochastic normalizing flows as non-equilibrium transformations. Journal of High Energy Physics, 2022, 2022, .	1.6	13
147	Learning to increase matching efficiency in identifying additional b-jets in the $t\bar{t}b\bar{b}$ process. European Physical Journal Plus, 2022, 137, .	1.2	2
148	Quantum Machine Learning for b-jet charge identification. Journal of High Energy Physics, 2022, 2022, .	1.6	11
149	Machine learning of log-likelihood functions in global analysis of parton distributions. Journal of High Energy Physics, 2022, 2022, .	1.6	4
150	Detection of collinear high energetic di-photon signatures with Micromegas Detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2022, 1042, 167440.	0.7	0
151	Using machine learning to improve neutron identification in water Cherenkov detectors. Frontiers in Big Data, 0, 5, .	1.8	2
152	Deep learning jet images as a probe of light Higgsino dark matter at the LHC. Physical Review D, 2022, 106, .	1.6	4
153	Learning tree structures from leaves for particle decay reconstruction. Machine Learning: Science and Technology, 2022, 3, 035012.	2.4	1

#	ARTICLE	IF	CITATIONS
154	Colloquium: Machine learning in nuclear physics. <i>Reviews of Modern Physics</i> , 2022, 94, .	16.4	57
155	Non-parametric data-driven background modelling using conditional probabilities. <i>Journal of High Energy Physics</i> , 2022, 2022, .	1.6	3
156	Machine learning in electron microscopy for advanced nanocharacterization: current developments, available tools and future outlook. <i>Nanoscale Horizons</i> , 2022, 7, 1427-1477.	4.1	21
157	Detecting new physics as novelty "Complementarity matters. <i>Journal of High Energy Physics</i> , 2022, 2022, .	1.6	0
158	Machine-learning-based prediction of parameters of secondaries in hadronic showers using calorimetric observables. <i>Journal of Instrumentation</i> , 2022, 17, P10031.	0.5	1
159	Machine Learning Applications for Jet Tagging in the CMS Experiment. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 10574.	1.3	2
160	FAIR principles for AI models with a practical application for accelerated high energy diffraction microscopy. <i>Scientific Data</i> , 2022, 9, .	2.4	7
161	Random matrix analysis of deep neural network weight matrices. <i>Physical Review E</i> , 2022, 106, .	0.8	5
162	Top squark signal significance enhancement by different Machine Learning Algorithms. <i>International Journal of Modern Physics A</i> , 0, , .	0.5	0
163	Energy reconstruction for large liquid scintillator detectors with machine learning techniques: aggregated features approach. <i>European Physical Journal C</i> , 2022, 82, .	1.4	1
164	A method for approximating optimal statistical significances with machine-learned likelihoods. <i>European Physical Journal C</i> , 2022, 82, .	1.4	6
165	Layer-Wise Optimization of Contextual Neural Networks with Dynamic Field of Aggregation. <i>Lecture Notes in Computer Science</i> , 2022, , 302-312.	1.0	0
166	Neural network potentials for chemistry: concepts, applications and prospects. , 2023, 2, 28-58.		17
167	Development of a vertex finding algorithm using Recurrent Neural Network. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2023, 1047, 167836.	0.7	2
168	Exploring the universality of hadronic jet classification. <i>European Physical Journal C</i> , 2022, 82, .	1.4	1
169	DeepTSS: multi-branch convolutional neural network for transcription start site identification from CAGE data. <i>BMC Bioinformatics</i> , 2022, 23, .	1.2	1
170	Predicting the Masses of Exotic Hadrons with Data Augmentation Using Multilayer Perceptron. <i>International Journal of Modern Physics A</i> , 0, , .	0.5	0
171	Unsupervised learning of interacting topological phases from experimental observables. <i>Fundamental Research</i> , 2023, , .	1.6	1

#	ARTICLE	IF	CITATIONS
172	Analysis and evaluation of machine learning applications in materials design and discovery. Materials Today Communications, 2023, 35, 105494.	0.9	4
173	Lorenzetti Showers - A general-purpose framework for supporting signal reconstruction and triggering with calorimeters. Computer Physics Communications, 2023, 286, 108671.	3.0	0
174	Automated feature selection procedure for particle jet classification. Nuclear Physics B, 2023, 990, 116182.	0.9	0
175	Explainability of High Energy Physics events classification using SHAP. Journal of Physics: Conference Series, 2023, 2438, 012082.	0.3	1
177	Trigger Detection for the PHENIX Experiment via Bipartite Graph Networks with Set Transformer. Lecture Notes in Computer Science, 2023, , 51-67.	1.0	1
178	Machine learning of the well-known things. Theoretical and Mathematical Physics(Russian) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	0.3	0
179	Methodology for the Application of Deep Neural Networks in Searches for New Physics at Colliders and Statistical Interpretation of Expected Results. Physics of Atomic Nuclei, 2022, 85, 708-720.	0.1	2
180	Revealing the nature of hidden charm pentaquarks with machine learning. Science Bulletin, 2023, 68, 981-989.	4.3	4
181	Graph neural networks at the Large Hadron Collider. Nature Reviews Physics, 2023, 5, 281-303.	11.9	6
199	The Transfer Learning-Based Approach for Electromagnetic Signal Classification Using Simulated HGCAL Data. , 2023, , .		1
209	Probing the Frontiers of High-Energy Physics: Deep Learning-Based Invariant Mass Prediction from Electron-Electron Collisions. , 2023, , .		0