Andrew Mastbaum

List of Publications by Year
in descending order

48	1,343	331670 21	361022 35
papers	citations	h-index	g-index

48	48	48	1005
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Current Status and Future Prospects of the SNO+ Experiment. Advances in High Energy Physics, 2016, 2016, 1-21.	1.1	185
2	Long-baseline neutrino oscillation physics potential of the DUNE experiment. European Physical Journal C, 2020, 80, 1.	3.9	93
3	Theia: an advanced optical neutrino detector. European Physical Journal C, 2020, 80, 1.	3.9	70
4	Prospects for beyond the Standard Model physics searches at the Deep Underground Neutrino Experiment. European Physical Journal C, 2021, 81, 322.	3.9	69
5	Ionization electron signal processing in single phase LArTPCs. Part I. Algorithm Description and quantitative evaluation with MicroBooNE simulation. Journal of Instrumentation, 2018, 13, P07006-P07006.	1.2	59
6	Ionization electron signal processing in single phase LArTPCs. Part II. Data/simulation comparison and performance in MicroBooNE. Journal of Instrumentation, 2018, 13, P07007-P07007.	1.2	56
7	First Measurement of Inclusive Muon Neutrino Charged Current Differential Cross Sections on Argon at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>E</mml:mi><mml:mi>Î½</mml:mi></mml:msub><mml:mo>â^¼</mml:mo><mml:mn>0.8</mml:mn> with the MicroBooNE Detector. Physical Review Letters, 2019, 123, 131801.	7.8	53
8	Deep neural network for pixel-level electromagnetic particle identification in the MicroBooNE liquid argon time projection chamber. Physical Review D, 2019, 99, .	4.7	47
9	The SNO+ experiment. Journal of Instrumentation, 2021, 16, P08059.	1.2	45
10	Calibration of the charge and energy loss per unit length of the MicroBooNE liquid argon time projection chamber using muons and protons. Journal of Instrumentation, 2020, 15, P03022-P03022.	1.2	34
11	First Measurement of Differential Charged Current Quasielasticlike <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Î½</mml:mi><mml:mi>Î¼</mml:mi></mml:msub></mml:math> -Argon Scattering Cross Sections with the MicroBooNE Detector. Physical Review Letters, 2020, 125, 201803.	7.8	34
12	Search for an Excess of Electron Neutrino Interactions in MicroBooNE Using Multiple Final-State Topologies. Physical Review Letters, 2022, 128, .	7.8	32
13	Measurement of differential cross sections for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Î½</mml:mi><mml:mi>Î¼</mml:mi></mml:msub></mml:math> -Ar charged-current interactions with protons and no pions in the final state with the MicroBooNE detector. Physical Review D, 2020, 102, .	4.7	30
14	Search for heavy neutral leptons decaying into muon-pion pairs in the MicroBooNE detector. Physical Review D, 2020, 101, .	4.7	28
15	A method to determine the electric field of liquid argon time projection chambers using a UV laser system and its application in MicroBooNE. Journal of Instrumentation, 2020, 15, P07010-P07010.	1.2	28
16	Volume III. DUNE far detector technical coordination. Journal of Instrumentation, 2020, 15, T08009-T08009.	1.2	25
17	First measurement of Î½Î¼ charged-current Ï€0 production on argon with the MicroBooNE detector. Physical Review D, 2019, 99, .	4.7	24
18	Constraints on neutrino lifetime from the Sudbury Neutrino Observatory. Physical Review D, 2019, 99, .	4.7	23

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19	Measurement of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">B</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>8</mml:mn></mml:mrow></mml:mmultiscripts></mml:mrow></mml:math> solar neutrino flux in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"	4.7	23
20	Search for Neutrino-Induced Neutral-Current <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="normal">Î”</mml:mi></mml:math> Radiative Decay in MicroBooNE and a First Test of the MiniBooNE Low Energy Excess under a Single-Photon Hypothesis. Physical Review Letters, 2022, 128, 111801.	7.8	22
21	Reconstruction and measurement of ?(100) MeV energy electromagnetic activity from Ï€0 arrow Î³Î³ decays in the MicroBooNE LArTPC. Journal of Instrumentation, 2020, 15, P02007-P02007.	1.2	21
22	Measurement of the flux-averaged inclusive charged-current electron neutrino and antineutrino cross section on argon using the NuMI beam and the MicroBooNE detector. Physical Review D, 2021, 104, .	4.7	21
23	Design and construction of the MicroBooNE Cosmic Ray Tagger system. Journal of Instrumentation, 2019, 14, P04004-P04004.	1.2	20
24	Search for invisible modes of nucleon decay in water with the SNO+ detector. Physical Review D, 2019, 99, .	4.7	20
25	Search for an anomalous excess of charged-current quasielastic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Î½</mml:mi><mml:mi>e</mml:mi></mml:msub></mml:math> interactions with the MicroBooNE experiment using Deep-Learning-based reconstruction. Physical Review D, 2022, 105, .	4.7	20
26	Semantic segmentation with a sparse convolutional neural network for event reconstruction in MicroBooNE. Physical Review D, 2021, 103, .	4.7	19
27	Development, characterisation, and deployment of the SNO+ liquid scintillator. Journal of Instrumentation, 2021, 16, P05009.	1.2	19
28	New <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>CC</mml:mi><mml:mrow><mml:mn>0</mml:mn><mml:mi>Ï€</mml:mi></mml:mrow></mml:m GENIE model tune for MicroBooNE. Physical Review D, 2022, 105, .	4.7	18
29	Search for an anomalous excess of charged-current <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Î½</mml:mi><mml:mi>e</mml:mi></mml:msub></mml:math> interactions without pions in the final state with the MicroBooNE experiment. Physical Review D, 2021, 105, .	4.7	17
30	Search for an anomalous excess of inclusive charged-current <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Î½</mml:mi><mml:mi>e</mml:mi></mml:msub></mml:math> interactions in the MicroBooNE experiment using Wire-Cell reconstruction. Physical Review D, 2022, 105, .	4.7	15
31	Comparison of $${varvec{u }}_{varvec{mu }}-$$Ar multiplicity distributions observed by MicroBooNE to GENIE model predictions. European Physical Journal C, 2019, 79, 1.	3.9	14
32	Benefits of MeV-scale reconstruction capabilities in large liquid argon time projection chambers. Physical Review D, 2020, 102, .	4.7	14
33	Cosmic Ray Background Rejection with Wire-Cell LArTPC Event Reconstruction in the MicroBooNE Detector. Physical Review Applied, 2021, 15, .	3.8	14
34	Improving photoelectron counting and particle identification in scintillation detectors with Bayesian techniques. Astroparticle Physics, 2015, 65, 40-54.	4.3	13
35	Tests of Lorentz invariance at the Sudbury Neutrino Observatory. Physical Review D, 2018, 98, .	4.7	13
36	First Measurement of Energy-Dependent Inclusive Muon Neutrino Charged-Current Cross Sections on Argon with the MicroBooNE Detector. Physical Review Letters, 2022, 128, 151801.	7.8	13

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37	Update on the MiniCLEAN Dark Matter Experiment. Physics Procedia, 2015, 61, 144-152.	1.2	12
38	Search for hep solar neutrinos and the diffuse supernova neutrino background using all three phases of the Sudbury Neutrino Observatory. Physical Review D, 2020, 102, .	4.7	12
39	First measurement of inclusive electron-neutrino and antineutrino charged current differential cross sections in charged lepton energy on argon in MicroBooNE. Physical Review D, 2022, 105, .	4.7	12
40	Comparisons and challenges of modern neutrino-scattering experiments. Physical Review D, 2022, 105, .	4.7	11
41	Novel approach for evaluating detector-related uncertainties in a LArTPC using MicroBooNE data. European Physical Journal C, 2022, 82, .	3.9	10
42	Construction of precision wire readout planes for the Short-Baseline Near Detector (SBND). Journal of Instrumentation, 2020, 15, P06033-P06033.	1.2	8
43	Rejecting cosmic background for exclusive charged current quasi elastic neutrino interaction studies with Liquid Argon TPCs; a case study with the MicroBooNE detector. European Physical Journal C, 2019, 79, 1.	3.9	7
44	Cosmogenic neutron production at the Sudbury Neutrino Observatory. Physical Review D, 2019, 100, .	4.7	6
45	Triplet lifetime in gaseous argon. European Physical Journal A, 2019, 55, 1.	2.5	5
46	Measurement of neutron-proton capture in the SNO+ water phase. Physical Review C, 2020, 102, .	2.9	5
47	Cosmic Ray Background Removal With Deep Neural Networks in SBND. Frontiers in Artificial Intelligence, 2021, 4, 649917.	3.4	4
48	Data Quality and Run Selection for the SNO+ experiment. Journal of Physics: Conference Series, 2020, 1342, 012127.	0.4	0