Andrew Mastbaum

List of Publications by Year
in descending order

48 papers	1,343 citations	331670 21 h-index	361022 35 g-index
48 all docs	48 docs citations	48 times ranked	1005 citing authors

#	Article	IF	Citations
1	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
2	Search for Neutrino-Induced Neutral-Current Δ 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
3	New $CC0\pi$ GENIE model tune for MicroBooNE. Physical Review D, 2022, 105, .	4.7	18
4	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
5	Comparisons and challenges of modern neutrino-scattering experiments. Physical Review D, 2022, 105, .	4.7	11
6	Novel approach for evaluating detector-related uncertainties in a LArTPC using MicroBooNE data. European Physical Journal C, 2022, 82, .	3.9	10
7	Search for an anomalous excess of inclusive charged-current ν_e interactions in the MicroBooNE experiment using Wire-Cell reconstruction. Physical Review D, 2022, 105, .	4.7	15
8	Search for an anomalous excess of charged-current quasielastic ν_e interactions with the MicroBooNE experiment using Deep-Learning-based reconstruction. Physical Review D, 2022, 105, .	4.7	20
9	Search for an Excess of Electron Neutrino Interactions in MicroBooNE Using Multiple Final-State Topologies. Physical Review Letters, 2022, 128, .	7.8	32
10	Search for an anomalous excess of charged-current ν_e interactions without pions in the final state with the MicroBooNE experiment. Physical Review D, 2022, 105, .	4.7	17
11	Semantic segmentation with a sparse convolutional neural network for event reconstruction in MicroBooNE. Physical Review D, 2021, 103, .	4.7	19
12	Prospects for beyond the Standard Model physics searches at the Deep Underground Neutrino Experiment. European Physical Journal C, 2021, 81, 322.	3.9	69
13	Development, characterisation, and deployment of the SNO+ liquid scintillator. Journal of Instrumentation, 2021, 16, P05009.	1.2	19
14	Cosmic Ray Background Rejection with Wire-Cell LArTPC Event Reconstruction in the MicroBooNE Detector. Physical Review Applied, 2021, 15, .	3.8	14
15	Cosmic Ray Background Removal With Deep Neural Networks in SBND. Frontiers in Artificial Intelligence, 2021, 4, 649917.	3.4	4
16	The SNO+ experiment. Journal of Instrumentation, 2021, 16, P08059.	1.2	45
17	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
18	Construction of precision wire readout planes for the Short-Baseline Near Detector (SBND). Journal of Instrumentation, 2020, 15, P06033-P06033.	1.2	8

#	Article	IF	Citations
19	Theia: an advanced optical neutrino detector. European Physical Journal C, 2020, 80, 1.	3.9	70
20	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
21	Search for heavy neutral leptons decaying into muon-pion pairs in the MicroBooNE detector. Physical Review D, 2020, 101, .	4.7	28
22	Long-baseline neutrino oscillation physics potential of the DUNE experiment. European Physical Journal C, 2020, 80, 1.	3.9	93
23	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
24	Benefits of MeV-scale reconstruction capabilities in large liquid argon time projection chambers. Physical Review D, 2020, 102, .	4.7	14
25	First Measurement of Differential Charged Current Quasielasticlike ν_μ -Argon Scattering Cross Sections with the MicroBooNE Detector. Physical Review Letters, 2020, 125, 201803.	7.8	34
26	Volume III. DUNE far detector technical coordination. Journal of Instrumentation, 2020, 15, T08009-T08009.	1.2	25
27	Measurement of neutron-proton capture in the SNO+ water phase. Physical Review C, 2020, 102, .	2.9	5
28	Reconstruction and measurement of ?(100) MeV energy electromagnetic activity from π^0 arrow $\gamma\gamma$ decays in the MicroBooNE LArTPC. Journal of Instrumentation, 2020, 15, P02007-P02007.	1.2	21
29	Search for <i>hep</i> 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
30	Data Quality and Run Selection for the SNO+ experiment. Journal of Physics: Conference Series, 2020, 1342, 012127.	0.4	0
31	Measurement of differential cross sections for ν_μ -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
32	Constraints on neutrino lifetime from the Sudbury Neutrino Observatory. Physical Review D, 2019, 99, .	4.7	23
33	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
34	First measurement of ν_μ charged-current π^0 production on argon with the MicroBooNE detector. Physical Review D, 2019, 99, .	4.7	24
35	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
36	First Measurement of Inclusive Muon Neutrino Charged Current Differential Cross Sections on Argon at $E_\nu \sim 0.8$ with the MicroBooNE Detector. Physical Review Letters, 2019, 123, 131801.	7.8	53

#	Article	IF	Citations
37	Comparison of $\vec{\nu}_{\vec{\mu}}$-Ar multiplicity distributions observed by MicroBooNE to GENIE model predictions. European Physical Journal C, 2019, 79, 1.	3.9	14
38	Design and construction of the MicroBooNE Cosmic Ray Tagger system. Journal of Instrumentation, 2019, 14, P04004-P04004.	1.2	20
39	Search for invisible modes of nucleon decay in water with the SNO+ detector. Physical Review D, 2019, 99, .	4.7	20
40	Measurement of the ^8B solar neutrino flux in $SNO+$	4.7	23
41	Triplet lifetime in gaseous argon. European Physical Journal A, 2019, 55, 1.	2.5	5
42	Cosmogenic neutron production at the Sudbury Neutrino Observatory. Physical Review D, 2019, 100, .	4.7	6
43	Tests of Lorentz invariance at the Sudbury Neutrino Observatory. Physical Review D, 2018, 98, .	4.7	13
44	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
45	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
46	Current Status and Future Prospects of the SNO+ Experiment. Advances in High Energy Physics, 2016, 2016, 1-21.	1.1	185
47	Update on the MiniCLEAN Dark Matter Experiment. Physics Procedia, 2015, 61, 144-152.	1.2	12
48	Improving photoelectron counting and particle identification in scintillation detectors with Bayesian techniques. Astroparticle Physics, 2015, 65, 40-54.	4.3	13