Francis Halzen

List of Publications by Year
in descending order

111 papers	4,459 citations	136950 32 h-index	102487 66 g-index
115 all docs	115 docs citations	115 times ranked	3262 citing authors

#	Article	IF	Citations
1	Multimessenger observations of a flaring blazar coincident with high-energy neutrino IceCube-170922A. Science, 2018, 361, .	12.6	654
2	Neutrino emission from the direction of the blazar TXS 0506+056 prior to the IceCube-170922A alert. Science, 2018, 361, 147-151.	12.6	601
3	Particle astrophysics with high energy neutrinos. Physics Reports, 1995, 258, 173-236.	25.6	445
4	High-energy neutrino astronomy: the cosmic ray connection. Reports on Progress in Physics, 2002, 65, 1025-1078.	20.1	304
5	GZK neutrinos after the Fermi-LAT diffuse photon flux measurement. Astroparticle Physics, 2010, 34, 106-115.	4.3	184
6	Invited Review Article: IceCube: An instrument for neutrino astronomy. Review of Scientific Instruments, 2010, 81, 081101.	1.3	157
7	Physics reach of high-energy and high-statistics IceCube atmospheric neutrino data. Physical Review D, 2005, 71, .	4.7	104
8	Opening a new window onto the universe with IceCube. Progress in Particle and Nuclear Physics, 2018, 102, 73-88.	14.4	93
9	Detecting microscopic black holes with neutrino telescopes. Physical Review D, 2002, 65, .	4.7	89
10	Pinpointing extragalactic neutrino sources in light of recent IceCube observations. Physical Review D, 2014, 90, .	4.7	85
11	<i>Colloquium</i>: Multimessenger astronomy with gravitational waves and high-energy neutrinos. Reviews of Modern Physics, 2013, 85, 1401-1420.	45.6	76
12	Neutrinos as a diagnostic of cosmic ray galactic-extragalactic transition. Physical Review D, 2005, 72, .	4.7	67
13	Improved Characterization of the Astrophysical Muonâ€“neutrino Flux with 9.5 Years of IceCube Data. Astrophysical Journal, 2022, 928, 50.	4.5	67
14	Minimal cosmogenic neutrinos. Physical Review D, 2012, 86, .	4.7	60
15	Identifying Galactic PeVatrons with neutrinos. Astroparticle Physics, 2009, 31, 437-444.	4.3	57
16	The Forward Physics Facility: Sites, experiments, and physics potential. Physics Reports, 2022, 968, 1-50.	25.6	57
17	Reconstructing the supernova bounce time with neutrinos in IceCube. Physical Review D, 2009, 80, .	4.7	54
18	High-energy cosmic neutrino puzzle: a review. Reports on Progress in Physics, 2015, 78, 126901.	20.1	51

#	Article	IF	Citations
19	Signatures of dark matter in underground detectors. Physical Review D, 1992, 45, 4439-4442.	4.7	50
20	Experimental Confirmation that the Proton is Asymptotically a Black Disk. Physical Review Letters, 2011, 107, 212002.	7.8	49
21	Prospects for identifying the sources of the Galactic cosmic rays with IceCube. Physical Review D, 2008, 78, .	4.7	46
22	Constraining sterile neutrinos with AMANDA and IceCube atmospheric neutrino data. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 041-041.	5.4	46
23	High energy neutrinos from the TeV Blazar 1ES 1959+650. Astroparticle Physics, 2005, 23, 537-542.	4.3	44
24	High-energy behavior of photon, neutrino, and proton cross sections. Physical Review D, 2015, 92, .	4.7	44
25	High-energy neutrino astrophysics. Nature Physics, 2017, 13, 232-238.	16.7	44
26	Exchange mechanism of proton-proton scattering and the trend of polarized-beam cross sections at intermediate energies. Physical Review D, 1974, 10, 344-347.	4.7	41
27	Prospects for detecting dark matter with neutrino telescopes in light of recent results from direct detection experiments. Physical Review D, 2006, 73, .	4.7	41
28	Hadroproduction of quark flavors. Physical Review D, 1978, 17, 1344-1355.	4.7	36
29	New experimental evidence that the proton develops asymptotically into a black disk. Physical Review D, 2012, 86, .	4.7	35
30	On the Neutrino Flares from the Direction of TXS 0506+056. Astrophysical Journal Letters, 2019, 874, L9.	8.3	33
31	Coincident GRB neutrino flux predictions: Implications for experimental UHE neutrino physics. Astroparticle Physics, 2006, 25, 118-128.	4.3	32
32	IceHEP high energy physics at the South Pole. Annals of Physics, 2006, 321, 2660-2716.	2.8	32
33	The indirect search for dark matter with IceCube. New Journal of Physics, 2009, 11, 105019.	2.9	32
34	Anomalies in (semi)-leptonic B decays B ^{Â±} â†'Ï„ ^{Â±} Î½, B ^{Â±} â†'DÏ„ ^{Â±} <i>Î½</i> and B ^{Â±} â†'D*Ï„ ^{Â±} <i>Î½</i> , and possible resolution with sterile neutrino. Chinese Physics C, 2017, 41, 113102.	3.7	31
35	Exploring Î½Ï„â^'Î½smixing with cascade events in DeepCore. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 048-048.	5.4	30
36	Two-loop electroweak parameters. Zeitschrift FÃ¼r Physik C-Particles and Fields, 1993, 58, 119-131.	1.5	29

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37	Probing leptoquark production at IceCube. Physical Review D, 2006, 74, .	4.7	29
38	Coplanar jets. Physical Review D, 1990, 42, 1435-1439.	4.7	28
39	Neutrinos from primordial black holes. Physical Review D, 1995, 52, 3239-3247.	4.7	28
40	IceCube. Annual Review of Nuclear and Particle Science, 2014, 64, 101-123.	10.2	28
41	Prospects for detecting galactic sources of cosmic neutrinos with IceCube: An update. Astroparticle Physics, 2017, 86, 46-56.	4.3	28
42	Astronomy and astrophysics with neutrinos. Physics Today, 2008, 61, 29-35.	0.3	25
43	Cosmic Neutrinos from Temporarily Gamma-suppressed Blazars. Astrophysical Journal Letters, 2021, 911, L18.	8.3	24
44	Predicting Proton-Air Cross Sections atsâˆ¼30TeVUsing Accelerator and Cosmic Ray Data. Physical Review Letters, 1999, 83, 4926-4928.	7.8	22
45	LS I +61 303 as a potential neutrino source on the light of magic results. Astroparticle Physics, 2007, 27, 500-508.	4.3	22
46	Constraints on cosmic-ray observation of Cygnus X-3. Nature, 1985, 317, 409-411.	27.8	19
47	Follow-up of Astrophysical Transients in Real Time with the IceCube Neutrino Observatory. Astrophysical Journal, 2021, 910, 4.	4.5	18
48	Neutrino flux from cosmic ray accelerators in the Cygnus spiral arm of the Galaxy. Physical Review D, 2007, 76, .	4.7	17
49	HIGH-ENERGY NEUTRINOS FROM RECENT BLAZAR FLARES. Astrophysical Journal, 2016, 831, 12.	4.5	17
50	Î³ray astronomy with muons. Physical Review D, 1997, 55, 4475-4479.	4.7	16
51	Heavy quarks and prompt leptons inpâ€•pcollider jets. Physical Review D, 1984, 30, 2326-2332.	4.7	15
52	Cosmic neutrinos from the sources of galactic and extragalactic cosmic rays. Astrophysics and Space Science, 2007, 309, 407-414.	1.4	14
53	Total hadronic cross sections and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Ï€</mml:mi><mml:mo>âˆ“</mml:mo></mml:msup><mml:msup><mml:mi>Ï€</mml:mi><mml:m Physical Review D, 2012, 85, .	4.7	14
54	Gamma-ray puzzle in Cygnus X: Implications for high-energy neutrinos. Physical Review D, 2017, 96, .	4.7	14

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55	Neutrino Astrophysics Experiments Beneath the Sea and Ice. Science, 2007, 315, 66-68.	12.6	13
56	Pionic photons and neutrinos from cosmic ray accelerators. Astroparticle Physics, 2013, 43, 155-162.	4.3	13
57	The highest energy neutrinos: First evidence for cosmic origin. Astronomische Nachrichten, 2014, 335, 507-516.	1.2	13
58	Observing the Birth of Supermassive Black Holes with the Planned ICECUBE Neutrino Detector. Physical Review Letters, 1998, 81, 5722-5725.	7.8	12
59	NEUTRINO EMISSION FROM HIGH-ENERGY COMPONENT GAMMA-RAY BURSTS. Astrophysical Journal, 2010, 721, 1891-1899.	4.5	12
60	Search for Multi-flare Neutrino Emissions in 10 yr of IceCube Data from a Catalog of Sources. Astrophysical Journal Letters, 2021, 920, L45.	8.3	12
61	The TeV Diffuse Cosmic Neutrino Spectrum and the Nature of Astrophysical Neutrino Sources. Astrophysical Journal, 2022, 933, 190.	4.5	10
62	GRB 941017: A Case Study of Neutrino Production in Gamma-Ray Bursts. Astrophysical Journal, 2004, 604, L85-L88.	4.5	9
63	Limits on the source properties of FR-I galaxies from high-energy neutrino and gamma observations. Astroparticle Physics, 2013, 48, 30-36.	4.3	9
64	A Search for Time-dependent Astrophysical Neutrino Emission with IceCube Data from 2012 to 2017. Astrophysical Journal, 2021, 911, 67.	4.5	9
65	Multimessenger Search for the Sources of Cosmic Rays Using Cosmic Neutrinos. Frontiers in Astronomy and Space Sciences, 2019, 6, .	2.8	7
66	Search for High-energy Neutrinos from Ultraluminous Infrared Galaxies with IceCube. Astrophysical Journal, 2022, 926, 59.	4.5	7
67	The search for matter in its quark-gluon phase. Contemporary Physics, 1983, 24, 591-622.	1.8	6
68	THE HIGHEST ENERGY COSMIC RAYS, GAMMA-RAYS AND NEUTRINOS: FACTS, FANCY AND RESOLUTION. International Journal of Modern Physics A, 2002, 17, 3432-3445.	1.5	6
69	Black holes associated with cosmic neutrino flares. Nature Physics, 2020, 16, 498-500.	16.7	6
70	Gamma-ray astronomy with muons: Sensitivity of IceCube to PeVatrons in the Southern sky. Physical Review D, 2009, 80, .	4.7	5
71	LECTURES ON NEUTRINO ASTRONOMY: THEORY AND EXPERIMENT. , 2000, , .		4
72	Commentary on â€œTotal Hadronic Cross-Section Data and the Froissartâ€“Martin Bound,â€•by Fagundes, Menon, and Silva. Brazilian Journal of Physics, 2012, 42, 465-470.	1.4	3

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73	Energy dependence and scaling of the spin-correlation and polarization parameters in elastic proton-proton scattering. Physical Review D, 1977, 15, 352-354.	4.7	2
74	AMANDA Observations Constrain the Ultrahigh Energy Neutrino Flux. Physical Review Letters, 2006, 97, 071101.	7.8	2
75	IceCube and the discovery of high-energy cosmic neutrinos. International Journal of Modern Physics D, 2016, 25, 1630028.	2.1	2
76	New angle on cosmic rays. Science, 2017, 357, 1240-1241.	12.6	2
77	Highâ€Energy Neutrinos from the Cosmos. Annalen Der Physik, 2021, 533, 2100309.	2.4	2
78	Very-high-energy antiproton physics: Colliding 1-TeV "antiquarks" on heavy nuclei. Physical Review D, 1980, 21, 726-732.	4.7	1
79	Cosmic Accelerators. Annals of the New York Academy of Sciences, 1987, 490, 237-256.	3.8	1
80	Catching photons from hell. Nature, 1992, 358, 452-453.	27.8	1
81	High-energy Neutrino Astronomy: From AMANDA to IceCube. Highlights of Astronomy, 2005, 13, 13-17.	0.0	1
82	Neutrino astronomy: An update. Frontiers of Physics, 2013, 8, 759-770.	5.0	1
83	Neutrino astronomy: An update. Astroparticle Physics, 2014, 53, 166-174.	4.3	1
84	IceCube in the era of multimessenger astrophysics. Modern Physics Letters A, 2017, 32, 1730010.	1.2	1
85	IceCube: Opening a new window on the universe from the South Pole. International Journal of Modern Physics D, 2019, 28, 1930007.	2.1	1
86	The AMANDA Neutrino Telescope. , 1998, , .		1
87	MULTI-MESSENGER ASTRONOMY: COSMIC RAYS, GAMMA-RAYS AND NEUTRINOS. , 2003, , .		1
88	Non-accelerator quark matter physics. Nuclear Physics A, 1987, 461, 181-196.	1.5	0
89	A full acceptance SSC detector: The cosmic-ray connection. AIP Conference Proceedings, 1993, , .	0.4	0
90	Large natural Cherenkov detectors: Water and ice. , 1998, , .		0

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91	The AMANDA neutrino telescope: Science prospects and performance at first light. , 1998, , .		0
92	IceCube: A Kilometer-Scale Neutrino Observatory at the South Pole. Highlights of Astronomy, 2005, 13, 949-950.	0.0	0
93	LEPTON PHOTON SYMPOSIUM 2005: SUMMARY AND OUTLOOK. International Journal of Modern Physics A, 2006, 21, 2000-2010.	1.5	0
94	INTRODUCTION TO THE SALSA, A SALTDOME SHOWER ARRAY AS A GZK NEUTRINO OBSERVATORY. International Journal of Modern Physics A, 2006, 21, 252-253.	1.5	0
95	Call for Papers: Special Issue of Earth, Planets and Space (EPS) â€œHigh Energy Earth Science: Muon and Neutrino Radiographyâ€• Earth, Planets and Space, 2008, 60, 791-791.	2.5	0
96	IceCube. , 2010, , .		0
97	IceCube Neutrinos: from Oscillations to PeV-Energy Events. Brazilian Journal of Physics, 2013, 43, 308-313.	1.4	0
98	Neutrinos at the Ends of the Earth. Scientific American, 2015, 313, 58-63.	1.0	0
99	HIGH ENERGY NEUTRINO ASTRONOMY: PASCOS 99. , 2000, , .		0
100	NEUTRINO ASTRONOMY AND THE AMANDA SOUTH POLE TELESCOPE. , 2000, , .		0
101	THE HIGHEST ENERGY COSMIC RAYS, GAMMA-RAYS AND NEUTRINOS: FACTS, FANCY AND RESOLUTION. , 2002, , .		0
102	THE HIGHEST ENERGY COSMIC RAYS, GAMMA-RAYS AND NEUTRINOS: FACTS, FANCY AND RESOLUTION. , 2002, , .		0
103	HIGH-ENERGY NEUTRINO ASTRONOMY. , 2004, , .		0
104	LEPTON PHOTON SYMPOSIUM 2005: SUMMARY AND OUTLOOK. , 2006, , .		0
105	High-Energy Neutrino Astronomy. , 2006, , .		0
106	Cosmic Neutrinos and the Energy Budget of Galactic and Extragalactic Cosmic Rays. , 2007, , .		0
107	NEUTRINO ASTRONOMY 2006. , 2008, , .		0
108	IceCube and the discovery of high-energy cosmic neutrinos. , 2017, , .		0

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109	Highlights from IceCube. , 2019, , .		0
110	Introduction: Particle Physics with Cosmic Accelerators. , 2020, , 1-9.		0
111	The observation of high-energy neutrinos from the cosmos: Lessons learned for multimessenger astronomy. International Journal of Modern Physics D, 2022, 31, .	2.1	0