Ilias Cholis

List of Publications by Year
in descending order

60 papers	4,652 citations	126907 33 h-index	133252 59 g-index
60 all docs	60 docs citations	60 times ranked	3674 citing authors

#	Article	IF	Citations
1	Did LIGO Detect Dark Matter?. Physical Review Letters, 2016, 116, 201301.	7.8	872
2	Background model systematics for the Fermi GeV excess. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 038-038.	5.4	359
3	THE<i>FERMI</i>HAZE: A GAMMA-RAY COUNTERPART TO THE MICROWAVE HAZE. Astrophysical Journal, 2010, 717, 825-842.	4.5	226
4	A tale of tails: Dark matter interpretations of the Fermi GeV excess in light of background model systematics. Physical Review D, 2015, 91, .	4.7	216
5	New Limits on Dark Matter Annihilation from Alpha Magnetic Spectrometer Cosmic Ray Positron Data. Physical Review Letters, 2013, 111, 171101.	7.8	193
6	Pulsars versus dark matter interpretation of ATIC/PAMELA. Physical Review D, 2009, 80, .	4.7	148
7	Cosmic neutrino pevatrons: A brand new pathway to astronomy, astrophysics, and particle physics. Journal of High Energy Astrophysics, 2014, 1-2, 1-30.	6.7	136
8	Dark matter and pulsar origins of the rising cosmic ray positron fraction in light of new data from the AMS. Physical Review D, 2013, 88, .	4.7	127
9	Millisecond pulsars cannot account for the inner Galaxyâ€™s GeV excess. Physical Review D, 2013, 88, .	4.7	127
10	Case for a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>700</mml:mn><mml:mo>+</mml:mo><mml:mi>GeV</mml:mi></mml:math>WIMP: Cosmic ray spectra from PAMELA, Fermi, and ATIC. Physical Review D, 2009, 80, .	4.7	125
11	HAWC observations strongly favor pulsar interpretations of the cosmic-ray positron excess. Physical Review D, 2017, 96, .	4.7	118
12	Stochastic Gravitational-Wave Background due to Primordial Binary Black Hole Mergers. Physical Review Letters, 2016, 117, 201102.	7.8	99
13	The PAMELA positron excess from annihilations into a light boson. Journal of Cosmology and Astroparticle Physics, 2009, 2009, 007-007.	5.4	96
14	High energy positrons from annihilating dark matter. Physical Review D, 2009, 80, .	4.7	96
15	Challenges in explaining the Galactic Center gamma-ray excess with millisecond pulsars. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 043-043.	5.4	94
16	A robust excess in the cosmic-ray antiproton spectrum: Implications for annihilating dark matter. Physical Review D, 2019, 99, .	4.7	94
17	The Galactic Center GeV excess from a series of leptonic cosmic-ray outbursts. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 005-005.	5.4	88
18	Black hole mass function from gravitational wave measurements. Physical Review D, 2017, 95, .	4.7	87

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19	Orbital eccentricities in primordial black hole binaries. Physical Review D, 2016, 94, .	4.7	85
20	Antiprotons from dark matter annihilation in the Galaxy: Astrophysical uncertainties. Physical Review D, 2012, 85, .	4.7	84
21	Using HAWC to discover invisible pulsars. Physical Review D, 2017, 96, .	4.7	81
22	Indirect detection analysis: wino dark matter case study. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 031-031.	5.4	74
23	On the origin of IceCube's PeV neutrinos. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 030-030.	5.4	72
24	A predictive analytic model for the solar modulation of cosmic rays. Physical Review D, 2016, 93, .	4.7	72
25	Determining the progenitors of merging black-hole binaries. Physical Review D, 2016, 94, .	4.7	65
26	High energy positrons and the WMAP haze from exciting dark matter. Physical Review D, 2009, 79, .	4.7	62
27	Constraining the origin of the rising cosmic ray positron fraction with the boron-to-carbon ratio. Physical Review D, 2014, 89, .	4.7	55
28	Extracting limits on dark matter annihilation from gamma ray observations towards dwarf spheroidal galaxies. Physical Review D, 2012, 86, .	4.7	52
29	Where do the <i>AMS-02</i> antihelium events come from?. Physical Review D, 2019, 99, .	4.7	46
30	Volumetric imaging of holographic optical traps. Optics Express, 2006, 14, 10907.	3.4	43
31	Dissecting the gamma-ray background in search of dark matter. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 014-014.	5.4	37
32	THE<i>FERMI</i>GAMMA-RAY HAZE FROM DARK MATTER ANNIHILATIONS AND ANISOTROPIC DIFFUSION. Astrophysical Journal, 2011, 741, 25.	4.5	36
33	Testing the Sensitivity of the Galactic Center Excess to the Point Source Mask. Physical Review Letters, 2020, 124, 231103.	7.8	35
34	Studying the MilkyÂWay pulsar population with cosmic-ray leptons. Physical Review D, 2018, 98, .	4.7	31
35	Possible evidence for the stochastic acceleration of secondary antiprotons by supernova remnants. Physical Review D, 2017, 95, .	4.7	30
36	Return of the templates: Revisiting the Galactic Center excess with multimessenger observations. Physical Review D, 2022, 105, .	4.7	30

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37	Constraints on dark matter annihilations from diffuse gamma-ray emission in the Galaxy. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 017-017.	5.4	29
38	Searching for the continuum spectrum photons correlated to the 130ÂGeV gamma-ray line. Physical Review D, 2012, 86, .	4.7	28
39	A critical reevaluation of radio constraints on annihilating dark matter. Physical Review D, 2015, 91, .	4.7	26
40	Bounds on ultralight hidden-photon dark matter from observation of the 21Âcm signal at cosmic dawn. Physical Review D, 2019, 99, .	4.7	26
41	New constraints from PAMELA anti-proton data on annihilating and decaying dark matter. Journal of Cosmology and Astroparticle Physics, 2011, 2011, 007-007.	5.4	25
42	<i>FERMI</i>GAMMA-RAY HAZE VIA DARK MATTER AND MILLISECOND PULSARS. Astrophysical Journal, 2010, 722, 1939-1945.	4.5	22
43	Diffuse galactic gamma rays at intermediate and high latitudes. I. Constraints on the ISM properties. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 004-004.	5.4	20
44	Snowmass2021 theory frontier white paper: Astrophysical and cosmological probes of dark matter. Journal of High Energy Astrophysics, 2022, 35, 112-138.	6.7	20
45	On the gravitational wave background from black hole binaries after the first LIGO detections. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 037-037.	5.4	17
46	Limits on runaway growth of intermediate mass black holes from advanced LIGO. Physical Review D, 2018, 97, .	4.7	17
47	Features in the spectrum of cosmic-ray positrons from pulsars. Physical Review D, 2018, 97, .	4.7	16
48	Analyzing the gamma-ray sky with wavelets. Physical Review D, 2018, 98, .	4.7	16
49	Consequences of a dark disk for the Fermi and PAMELA signals in theories with a Sommerfeld enhancement. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 010-010.	5.4	15
50	Wavelet-based techniques for the gamma-ray sky. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 045-045.	5.4	13
51	Utilizing cosmic-ray positron and electron observations to probe the averaged properties of MilkyÂWay pulsars. Physical Review D, 2022, 105, .	4.7	13
52	The 111 and 129 GeV<i>Î³</i>-ray lines from annihilations in the Milky Way dark matter halo, dark disk and subhalos. The Astronomical Review, 2013, 8, 4-18.	4.0	11
53	TeV gamma rays from Galactic Center pulsars. Physics of the Dark Universe, 2018, 21, 40-46.	4.9	11
54	Antideuterons and antihelium nuclei from annihilating dark matter. Physical Review D, 2020, 102, .	4.7	9

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55	Searching for the high-energy neutrino counterpart signals: The case of the Fermi bubbles signal and of dark matter annihilation in the inner Galaxy. Physical Review D, 2013, 88, .	4.7	8
56	Black holes merging with low mass gap objects inside globular clusters. Physical Review D, 2021, 104, .	4.7	8
57	Evaluating the merger rate of binary black holes from direct captures and third-body soft interactions using the MilkyÂWay globular clusters. Physical Review D, 2020, 102, .	4.7	5
58	Spherical harmonics analysis of<i>Fermi</i>gamma-ray data and the Galactic dark matter halo. Physical Review D, 2011, 84, .	4.7	3
59	Can Thorne-Å»ytkow objects source GW190814-type events?. Physical Review D, 2022, 105, .	4.7	3
60	Unveiling the nature of the â€œFermi GeV excessâ€: robust characterisation and possible interpretations. , 2016, , .		0