CÃ©line BÅ“hm

List of Publications by Year
in descending order

81 papers	3,975 citations	172443 29 h-index	114455 63 g-index
83 all docs	83 docs citations	83 times ranked	7319 citing authors

#	Article	IF	Citations
1	MeV Dark Matter: Has It Been Detected?. Physical Review Letters, 2004, 92, 101301.	7.8	369
2	First look at the physics case of TLEP. Journal of High Energy Physics, 2014, 2014, 1.	4.7	269
3	Simplified models for dark matter searches at the LHC. Physics of the Dark Universe, 2015, 9-10, 8-23.	4.9	250
4	Large Scale Structure in Bekensteinâ€™s Theory of Relativistic Modified Newtonian Dynamics. Physical Review Letters, 2006, 96, 011301.	7.8	221
5	Light scalar top quarks and supersymmetric dark matter. Physical Review D, 2000, 62, .	4.7	204
6	The 511Âkev emission from positron annihilation in the Galaxy. Reviews of Modern Physics, 2011, 83, 1001-1056.	45.6	197
7	A lower bound on the mass of cold thermal dark matter from Planck. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 041-041.	5.4	187
8	Reducing the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mn>0</mml:mn></mm and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Ïƒ</mml:mi></mml:mrow><mml:mrow><mml:mn>8</mml:mn></mm tensions with dark matter-neutrino interactions. Physical Review D, 2018, 97, .	4.7	133
9	Extended gamma-ray emission from Coy Dark Matter. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 009-009.	5.4	124
10	Constraints on DarkÂMatter interactions from structure formation: damping lengths. Astronomy and Astrophysics, 2005, 438, 419-442.	5.1	120
11	Can annihilating dark matter be lighter than a few GeVs?. Journal of Physics G: Nuclear and Particle Physics, 2004, 30, 279-285.	3.6	119
12	Interacting dark matter disguised as warm dark matter. Physical Review D, 2002, 66, .	4.7	105
13	Decays of the lightest top squark. Physical Review D, 2000, 61, .	4.7	93
14	Is it possible to explain neutrino masses with scalar dark matter?. Physical Review D, 2008, 77, .	4.7	91
15	Naturalness of light neutralino dark matter in pMSSM after LHC, XENON100 and Planck data. Journal of High Energy Physics, 2013, 2013, 1.	4.7	81
16	Interpretation of the Galactic Center excess of gamma rays with heavier dark matter particles. Physical Review D, 2014, 90, .	4.7	75
17	Fitting the Fermi-LAT GeV excess: On the importance of including the propagation of electrons from dark matter. Physical Review D, 2014, 90, .	4.7	67
18	Dark matter-neutrino interactions through the lens of their cosmological implications. Physical Review D, 2018, 97, .	4.7	64

#	Article	IF	Citations
19	Possible Evidence for MeV Dark Matter in Dwarf Spheroidals. Physical Review Letters, 2004, 93, 161302.	7.8	60
20	Can neutralinos in the MSSM and NMSSM scenarios still be light?. Physical Review D, 2010, 82, .	4.7	59
21	The BUFFALO HST Survey. Astrophysical Journal, Supplement Series, 2020, 247, 64.	7.7	57
22	Physics from solar neutrinos in dark matter direct detection experiments. Journal of High Energy Physics, 2016, 2016, 1.	4.7	54
23	125ÂGeV Higgs boson in the NMSSM in light of the LHC results and astrophysics constraints. Physical Review D, 2012, 86, .	4.7	48
24	Interplay and characterization of Dark Matter searches at colliders and in direct detection experiments. Physics of the Dark Universe, 2015, 9-10, 51-58.	4.9	40
25	Light new physics in XENON1T. Physical Review D, 2020, 102, .	4.7	38
26	More evidence in favor of light dark matter particles?. Physical Review D, 2004, 70, .	4.7	35
27	Ruling out the light weakly interacting massive particle explanation of the Galactic 511ÂkeV line. Physical Review D, 2016, 94, .	4.7	35
28	Quantifying the evidence for dark matter in CoGeNT data. Journal of Cosmology and Astroparticle Physics, 2014, 2014, 014-014.	5.4	33
29	Non-linear evolution of suppressed dark matter primordial power spectra. Monthly Notices of the Royal Astronomical Society, 2005, 360, 282-287.	4.4	30
30	PAMELA and FERMI limits on the neutralino-chargino mass degeneracy. Journal of Cosmology and Astroparticle Physics, 2012, 2012, 028-028.	5.4	29
31	Constraints on Î³-CDM interactions matching the Planck data precision. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 009-009.	5.4	29
32	Search for 511 keV emission in satellite galaxies of the Milky Way with INTEGRAL/SPI. Astronomy and Astrophysics, 2016, 595, A25.	5.1	29
33	Implications of a new light gauge boson for neutrino physics. Physical Review D, 2004, 70, .	4.7	27
34	The full Boltzmann hierarchy for dark matter-massive neutrino interactions. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 066.	5.4	27
35	Unique probe of dark matter in the core of M87 with the Event Horizon Telescope. Physical Review D, 2017, 96, .	4.7	26
36	Ruling out thermal dark matter with a black hole induced spiky profile in the M87 galaxy. Physical Review D, 2015, 92, .	4.7	25

#	ARTICLE	IF	CITATIONS
37	Radiative model of neutrino mass with neutrino interacting MeV dark matter. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 049-049.	5.4	25
38	Circular polarisation: a new probe of dark matter and neutrinos in the sky. Journal of Cosmology and Astroparticle Physics, 2017, 2017, 043-043.	5.4	25
39	Light neutralino dark matter in the MSSM and its implication for LHC searches for staus. Journal of High Energy Physics, 2012, 2012, 1.	4.7	24
40	Violation of the FRW consistency condition as a signature of backreaction. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 003-003.	5.4	24
41	Comprehensive study of neutrino-dark matter mixed damping. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 014-014.	5.4	24
42	Astrophysical limits on light NMSSM neutralinos. Physical Review D, 2011, 84, .	4.7	21
43	Discovery of a new extragalactic population of energetic particles. Physical Review D, 2017, 95, .	4.7	21
44	Understanding the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi></mml:math> -ray emission from the globular cluster 47 Tuc: Evidence for dark matter?. Physical Review D, 2018, 98, .	4.7	21
45	A new test for dark matter particles of low mass. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 661, 287-289.	4.1	20
46	Revisiting light neutralino scenarios in the MSSM. Physical Review D, 2011, 84, .	4.7	20
47	Light dark matter annihilations into two photons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 641, 247-253.	4.1	19
48	Probing a dark matter density spike at the Galactic Center. Physical Review D, 2014, 89, .	4.7	19
49	Novel Kacâ€“Moody-type affine extensions of non-crystallographic Coxeter groups. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 285202.	2.1	17
50	Faint objects in motion: the new frontier of high precision astrometry. Experimental Astronomy, 2021, 51, 845-886.	3.7	17
51	Affine extensions of non-crystallographic Coxeter groups induced by projection. Journal of Mathematical Physics, 2013, 54, 093508.	1.1	16
52	Exploring dark matter microphysics with galaxy surveys. Journal of Cosmology and Astroparticle Physics, 2015, 2015, 034-034.	5.4	16
53	Spatial morphology of the secondary emission in the Galactic Center gamma-ray excess. Physical Review D, 2016, 93, .	4.7	16
54	An INTEGRAL/SPI view of reticulum II: particle dark matter and primordial black holes limits in the MeV range. Monthly Notices of the Royal Astronomical Society, 2022, 511, 914-924.	4.4	16

#	Article	IF	Citations
55	Can the Morphology ofÎ³-Ray Emission Distinguish Annihilating from Decaying Dark Matter?. Physical Review Letters, 2010, 105, 221301.	7.8	12
56	Probing the supersymmetric inflaton and dark matter link via the CMB, LHC, and XENON1T experiments. Physical Review D, 2013, 87, .	4.7	12
57	Isotropic extragalactic flux from dark matter annihilations: lessons from interacting dark matter scenarios. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 069-069.	5.4	12
58	Could electromagnetic corrections solve the vorton excess problem?. Physical Review D, 1998, 57, 2580-2589.	4.7	11
59	Can <i>Planck</i> constrain indirect detection of dark matter in our Galaxy?. Monthly Notices of the Royal Astronomical Society: Letters, 2012, 422, L16-L20.	3.3	11
60	Scalar dark matter candidates revisited. Physical Review D, 2021, 103, .	4.7	11
61	On the Sunyaev-Zel'dovich effect from dark matter annihilation or decay in galaxy clusters. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 005-005.	5.4	10
62	Clarifying the covariant formalism for the Sunyaev-Zelâ€™dovich effect due to relativistic nonthermal electrons. Physical Review D, 2009, 79, .	4.7	9
63	Connecting the new H.E.S.S. diffuse emission at the Galactic Center with the Fermi GeV excess: A combination of millisecond pulsars and heavy dark matter?. Physical Review D, 2016, 94, .	4.7	9
64	Is it mixed dark matter or neutrino masses?. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 039-039.	5.4	9
65	Microarcsecond astrometric observatory Theia: from dark matter to compact objects and nearby earths. , 2016, , .		8
66	Observing Higgs boson production through its decay into Î³-rays: A messenger for dark matter candidates. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 723, 100-106.	4.1	7
67	XENON100 exclusion limit without considering<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="script">L</mml:mi><mml:mi>eff</mml:mi></mml:msub></mml:math>as a nuisance parameter. Physical Review D, 2012, 86, .	4.7	6
68	STRUCTURE FORMATION FOR LIGHT ANNIHILATING DARK MATTER. International Journal of Modern Physics A, 2004, 19, 4355-4365.	1.5	5
69	Implication of the PAMELA antiproton data for dark matter indirect detection at LHC. Journal of Cosmology and Astroparticle Physics, 2010, 2010, 013-013.	5.4	5
70	<i>Gaia</i> GraL: <i>Gaia</i> DR2 gravitational lens systems. Astronomy and Astrophysics, 2019, 628, A17.	5.1	5
71	A Reputation Game Simulation: Emergent Social Phenomena from Information Theory. Annalen Der Physik, 0, , 2100277.	2.4	4
72	The dark matter interpretation of the 511â€‰keV line. New Journal of Physics, 2009, 11, 105009.	2.9	3

#	Article	IF	Citations
73	New method for analyzing dark matter direct detection data. Physical Review D, 2014, 89, .	4.7	3
74	Optical reconstruction of dust in the region of supernova remnant RX J1713.7â^'3946 from astrometric data. Nature Astronomy, 2021, 5, 832-838.	10.1	3
75	Signature of sub GeV dark matter particles at the LHC and the Tevatron. Physical Review D, 2011, 83, .	4.7	2
76	Reply to â€œComment on â€˜Understanding the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi></mml:math> -ray emission from the globular cluster 47 Tuc: Evidence for dark matter?â€â€™. Physical Review D, 2019, 100, .	4.7	2
77	Using circular polarization to test the composition and dynamics of astrophysical particle accelerators. Physical Review D, 2020, 102, .	4.7	2
78	Shocking signals of dark matter annihilation. Physical Review D, 2016, 93, .	4.7	1
79	The Fermi-LAT spectrum of Centaurus A - Analysis and interpretations. AIP Conference Proceedings, 2017, , .	0.4	1
80	Constraining the Strength of Dark Matter Interactions from Structure Formation. , 2002, , 333-344.		1
81	The Energetic Particle Population in Centaurus A. Proceedings of the International Astronomical Union, 2016, 12, 211-214.	0.0	0