

Rouven Essig

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

6,827
citations

87888

38
h-index

161849

54
g-index

56
all docs

56
docs citations

56
times ranked

8069
citing authors

#	ARTICLE	IF	CITATIONS
1	SENSEI: Characterization of Single-Electron Events Using a Skipper Charge-Coupled Device. <i>Physical Review Applied</i> , 2022, 17, .	3.8	16
2	Sources of Low-Energy Events in Low-Threshold Dark-Matter and Neutrino Detectors. <i>Physical Review X</i> , 2022, 12, .	8.9	26
3	Cosmological constraints on dark matter interactions with ordinary matter. <i>Physics Reports</i> , 2022, 961, 1-35.	25.6	33
4	Exploring new physics with O(keV) electron recoils in direct detection experiments. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	62
5	Light(ly)-coupled dark matter in the keV range: freeze-in and constraints. <i>Journal of High Energy Physics</i> , 2021, 2021, 1.	4.7	25
6	The cosmological evolution of self-interacting dark matter. <i>Journal of Cosmology and Astroparticle Physics</i> , 2021, 2021, 013.	5.4	23
7	SENSEI: Direct-Detection Results on sub-GeV Dark Matter from a New Skipper CCD. <i>Physical Review Letters</i> , 2020, 125, 171802.	7.8	208
8	Relation between the Migdal Effect and Dark Matter-Electron Scattering in Isolated Atoms and Semiconductors. <i>Physical Review Letters</i> , 2020, 124, 021801.	7.8	81
9	Structure formation and exotic compact objects in a dissipative dark sector. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 036-036.	5.4	40
10	Direct detection of strongly interacting sub-GeV dark matter via electron recoils. <i>Journal of Cosmology and Astroparticle Physics</i> , 2019, 2019, 070-070.	5.4	91
11	Constraining Dissipative Dark Matter Self-Interactions. <i>Physical Review Letters</i> , 2019, 123, 121102.	7.8	66
12	Long-lived particles at the energy frontier: the MATHUSLA physics case. <i>Reports on Progress in Physics</i> , 2019, 82, 116201.	20.1	220
13	SENSEI: Direct-Detection Constraints on Sub-GeV Dark Matter from a Shallow Underground Run Using a Prototype Skipper CCD. <i>Physical Review Letters</i> , 2019, 122, 161801.	7.8	155
14	Direct detection of nuclear scattering of sub-GeV dark matter using molecular excitations. <i>Physical Review Research</i> , 2019, 1, .	3.6	35
15	Direct Detection of Sub-GeV Dark Matter: Models and Constraints. <i>Thirty Years of Astronomical Discovery With UKIRT</i> , 2019, , 59-67.	0.3	0
16	Supernova 1987A constraints on sub-GeV dark sectors, millicharged particles, the QCD axion, and an axion-like particle. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	4.7	302
17	SENSEI: First Direct-Detection Constraints on Sub-GeV Dark Matter from a Surface Run. <i>Physical Review Letters</i> , 2018, 121, 061803.	7.8	145
18	Solar neutrinos as a signal and background in direct-detection experiments searching for sub-GeV dark matter with electron recoils. <i>Physical Review D</i> , 2018, 97, .	4.7	55

#	ARTICLE	IF	CITATIONS
19	Revisiting Supernova 1987A constraints on dark photons. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	128
20	Direct detection of sub-GeV dark matter with scintillating targets. <i>Physical Review D</i> , 2017, 96, .	4.7	110
21	Single-Electron and Single-Photon Sensitivity with a Silicon Skipper CCD. <i>Physical Review Letters</i> , 2017, 119, 131802.	7.8	158
22	Searching for dark absorption with direct detection experiments. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	110
23	New constraints and prospects for sub-GeV dark matter scattering off electrons in xenon. <i>Physical Review D</i> , 2017, 96, .	4.7	257
24	Detection of sub-GeV dark matter and solar neutrinos via chemical-bond breaking. <i>Physical Review D</i> , 2017, 95, .	4.7	58
25	Higgs-precision constraints on colored naturalness. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	7
26	Direct detection of sub-GeV dark matter with semiconductor targets. <i>Journal of High Energy Physics</i> , 2016, 2016, 1.	4.7	278
27	A facility to search for hidden particles at the CERN SPS: the SHiP physics case. <i>Reports on Progress in Physics</i> , 2016, 79, 124201.	20.1	496
28	Strong optimized conservative Fermi-LAT constraints on dark matter models from the inclusive photon spectrum. <i>Physical Review D</i> , 2015, 91, .	4.7	21
29	Uncovering light scalars with exotic Higgs decays to $b\bar{b} + \hat{1}/4 + \hat{1}/4 \hat{a}'$. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	13
30	Projections for dark photon searches at Mu3e. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	42
31	Illuminating dark photons with high-energy colliders. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	241
32	Strong Constraints on Sub-GeV Dark Sectors from SLAC Beam Dump E137. <i>Physical Review Letters</i> , 2014, 113, 171802.	7.8	180
33	Exotic decays of the 125-GeV Higgs boson. <i>Physical Review D</i> , 2014, 90, .	4.7	209
34	Constraining light dark matter with diffuse X-ray and gamma-ray observations. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	220
35	Constraining light dark matter with low-energy e^+e^- colliders. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	4.7	159
36	Boosted multijet resonances and new color-flow variables. <i>Physical Review D</i> , 2013, 88, .	4.7	8

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37	Direct detection of sub-GeV dark matter. Physical Review D, 2012, 85, .	4.7	399
38	Simplified models for LHC new physics searches. Journal of Physics G: Nuclear and Particle Physics, 2012, 39, 105005.	3.6	273
39	Physics opportunities with the 12 GeV upgrade at Jefferson Lab. European Physical Journal A, 2012, 48, 1.	2.5	234
40	First Direct Detection Limits on Sub-GeV Dark Matter from XENON10. Physical Review Letters, 2012, 109, 021301.	7.8	344
41	Heavy flavor simplified models at the LHC. Journal of High Energy Physics, 2012, 2012, 1.	4.7	80
42	An electron fixed target experiment to search for a new vector boson $A\hat{e}^2$ decaying to $e+e\hat{e}$. Journal of High Energy Physics, 2011, 2011, 1.	4.7	103
43	New dynamics and dualities in supersymmetric chiral gauge theories. Journal of High Energy Physics, 2011, 2011, 1.	4.7	8
44	Phases of N=1 supersymmetric chiral gauge theories. Journal of High Energy Physics, 2011, 2011, 1.	4.7	7
45	Dynamical supersymmetry breaking, with flavor. Physical Review D, 2010, 81, .	4.7	9
46	Indirect dark matter detection limits from the ultrafaint Milky Way satellite Segue 1. Physical Review D, 2010, 82, .	4.7	51
47	Discovering new light states at neutrino experiments. Physical Review D, 2010, 82, .	4.7	138
48	Probing dark forces and light hidden sectors at low-energy $e\hat{e}$. Physical Review D, 2009, 80, .	4.7	173
49	New fixed-target experiments to search for dark gauge forces. Physical Review D, 2009, 80, .	4.7	480
50	Bounds on cross sections and lifetimes for dark matter annihilation and decay into charged leptons from gamma-ray observations of dwarf galaxies. Physical Review D, 2009, 80, .	4.7	96
51	Metastable supersymmetry breaking and multitrace deformations of SQCD. Journal of High Energy Physics, 2009, 2009, 043-043.	4.7	43
52	Direct detection of nonchiral dark matter. Physical Review D, 2008, 78, .	4.7	51
53	The minimally tuned minimal supersymmetric standard model. Journal of High Energy Physics, 2008, 2008, 073-073.	4.7	19
54	Meta-stable dynamical supersymmetry breaking near points of enhanced symmetry. Journal of High Energy Physics, 2007, 2007, 032-032.	4.7	21

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55	Implications of the CERN LEP Higgs bounds for the MSSM stop sector. <i>Physical Review D</i> , 2007, 75, .	4.7	13
56	The Low-Mass Dark Matter Frontier. <i>Physics Magazine</i> , 0, 13, .	0.1	7