

# Rouven Essig

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3863703/publications.pdf>

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	A facility to search for hidden particles at the CERN SPS: the SHiP physics case. Reports on Progress in Physics, 2016, 79, 124201.	20.1	496
2	New fixed-target experiments to search for dark gauge forces. Physical Review D, 2009, 80, .	4.7	480
3	Direct detection of sub-GeV dark matter. Physical Review D, 2012, 85, .	4.7	399
4	First Direct Detection Limits on Sub-GeV Dark Matter from XENON10. Physical Review Letters, 2012, 109, 021301.	7.8	344
5	Supernova 1987A constraints on sub-GeV dark sectors, millicharged particles, the QCD axion, and an axion-like particle. Journal of High Energy Physics, 2018, 2018, 1.	4.7	302
6	Direct detection of sub-GeV dark matter with semiconductor targets. Journal of High Energy Physics, 2016, 2016, 1.	4.7	278
7	Simplified models for LHC new physics searches. Journal of Physics G: Nuclear and Particle Physics, 2012, 39, 105005.	3.6	273
8	New constraints and prospects for sub-GeV dark matter scattering off electrons in xenon. Physical Review D, 2017, 96, .	4.7	257
9	Illuminating dark photons with high-energy colliders. Journal of High Energy Physics, 2015, 2015, 1.	4.7	241
10	Physics opportunities with the 12 GeV upgrade at Jefferson Lab. European Physical Journal A, 2012, 48, 1.	2.5	234
11	Constraining light dark matter with diffuse X-ray and gamma-ray observations. Journal of High Energy Physics, 2013, 2013, 1.	4.7	220
12	Long-lived particles at the energy frontier: the MATHUSLA physics case. Reports on Progress in Physics, 2019, 82, 116201.	20.1	220
13	Exotic decays of the 125 GeV Higgs boson. Physical Review D, 2014, 90, .	4.7	209
14	SENSEI: Direct-Detection Results on sub-GeV Dark Matter from a New Skipper CCD. Physical Review Letters, 2020, 125, 171802.	7.8	208
15	Strong Constraints on Sub-GeV Dark Sectors from SLAC Beam Dump E137. Physical Review Letters, 2014, 113, 171802.	7.8	180
16	Probing dark forces and light hidden sectors at low-energy $e^+e^-$ colliders. Physical Review D, 2009, 80, .	4.7	178
17	Constraining light dark matter with low-energy $e^+e^-$ colliders. Journal of High Energy Physics, 2013, 2013, 1.	4.7	159
18	Single-Electron and Single-Photon Sensitivity with a Silicon Skipper CCD. Physical Review Letters, 2017, 119, 131802.	7.8	158

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	Discovering new light states at neutrino experiments. <i>Physical Review D</i> , 2010, 82, .	4.7	138
22	Revisiting Supernova 1987A constraints on dark photons. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	128
23	Direct detection of sub-GeV dark matter with scintillating targets. <i>Physical Review D</i> , 2017, 96, .	4.7	110
24	Searching for dark absorption with direct detection experiments. <i>Journal of High Energy Physics</i> , 2017, 2017, 1.	4.7	110
25	An electron fixed target experiment to search for a new vector boson $A\hat{e}^2$ decaying to $e+e\hat{e}$ . <i>Journal of High Energy Physics</i> , 2011, 2011, 1.	4.7	103
26	Bounds on cross sections and lifetimes for dark matter annihilation and decay into charged leptons from gamma-ray observations of dwarf galaxies. <i>Physical Review D</i> , 2009, 80, .	4.7	96
27	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
28	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
29	Heavy flavor simplified models at the LHC. <i>Journal of High Energy Physics</i> , 2012, 2012, 1.	4.7	80
30	Constraining Dissipative Dark Matter Self-Interactions. <i>Physical Review Letters</i> , 2019, 123, 121102.	7.8	66
31	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
32	Detection of sub-GeV dark matter and solar neutrinos via chemical-bond breaking. <i>Physical Review D</i> , 2017, 95, .	4.7	58
33	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
34	Direct detection of nonchiral dark matter. <i>Physical Review D</i> , 2008, 78, .	4.7	51
35	Indirect dark matter detection limits from the ultrafaint Milky Way satellite Segue 1. <i>Physical Review D</i> , 2010, 82, .	4.7	51
36	Metastable supersymmetry breaking and multitrace deformations of SQCD. <i>Journal of High Energy Physics</i> , 2009, 2009, 043-043.	4.7	43

#	ARTICLE	IF	CITATIONS
37	Projections for dark photon searches at Mu3e. Journal of High Energy Physics, 2015, 2015, 1.	4.7	42
38	Structure formation and exotic compact objects in a dissipative dark sector. Journal of Cosmology and Astroparticle Physics, 2019, 2019, 036-036.	5.4	40
39	Direct detection of nuclear scattering of sub-GeV dark matter using molecular excitations. Physical Review Research, 2019, 1, .	3.6	35
40	Cosmological constraints on dark matter interactions with ordinary matter. Physics Reports, 2022, 961, 1-35.	25.6	33
41	Sources of Low-Energy Events in Low-Threshold Dark-Matter and Neutrino Detectors. Physical Review X, 2022, 12, .	8.9	26
42	Light(ly)-coupled dark matter in the keV range: freeze-in and constraints. Journal of High Energy Physics, 2021, 2021, 1.	4.7	25
43	The cosmological evolution of self-interacting dark matter. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 013.	5.4	23
44	Meta-stable dynamical supersymmetry breaking near points of enhanced symmetry. Journal of High Energy Physics, 2007, 2007, 032-032.	4.7	21
45	Strong optimized conservative Fermi-LAT constraints on dark matter models from the inclusive photon spectrum. Physical Review D, 2015, 91, .	4.7	21
46	The minimally tuned minimal supersymmetric standard model. Journal of High Energy Physics, 2008, 2008, 073-073.	4.7	19
47	SENSEI: Characterization of Single-Electron Events Using a Skipper Charge-Coupled Device. Physical Review Applied, 2022, 17, .	3.8	16
48	Implications of the CERN LEP Higgs bounds for the MSSM stop sector. Physical Review D, 2007, 75, .	4.7	13
49	Uncovering light scalars with exotic Higgs decays to $b \bar{b} \hat{1}/4 + \hat{1}/4 \hat{a}'$ $\$ \$ \overline{b} \{ \mu \} ^ { + } \{ \mu \} ^ { - } \$ \$$ . Journal of High Energy Physics, 2015, 2015, 1.	4.7	13
50	Dynamical supersymmetry breaking, with flavor. Physical Review D, 2010, 81, .	4.7	9
51	New dynamics and dualities in supersymmetric chiral gauge theories. Journal of High Energy Physics, 2011, 2011, 1.	4.7	8
52	Boosted multijet resonances and new color-flow variables. Physical Review D, 2013, 88, .	4.7	8
53	Phases of N=1 supersymmetric chiral gauge theories. Journal of High Energy Physics, 2011, 2011, 1.	4.7	7
54	Higgs-precision constraints on colored naturalness. Journal of High Energy Physics, 2017, 2017, 1.	4.7	7

#	ARTICLE	IF	CITATIONS
55	The Low-Mass Dark Matter Frontier. Physics Magazine, 0, 13, .	0.1	7
56	Direct Detection of Sub-GeV Dark Matter: Models and Constraints. Thirty Years of Astronomical Discovery With UKIRT, 2019, , 59-67.	0.3	0