References for AxionLimits webpage

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1 Axion-photon

Haloscopes

- ABRACADABRA [1, 2]
- ADMX [3, 4, 5, 6]
- ADMX-Sidecar [7]
- ADMX-SLIC [8]
- CAPP [9, 10, 11]
- BASE [12]
- HAYSTAC [13, 14]
- ORGAN [15]
- QUAX [16, 17]
- RADES [18]
- RBF [19]
- SHAFT [20]
- UF [21]
- UPLOAD-DOWNLOAD [22]
- ABRACADABRA (projection) [23]
- ADBC (projection) [24]
- ADMX (projection) [25]
- aLIGO (projection) [26]
- ALPHA (projection) [27]
- BRASS (projection) [28]
- DM-Radio (projection) [29]
- DANCE (projection) [30]
- LAMPOST (projection) [31]
- MADMAX (projection) [32]
- KLASH (projection) [33]
- ORGAN (projection) [15]
- TOORAD (projection) [34]

LSW/Helioscopes

- ALPS [35]
- CAST [36, 37]
- CROWS [38]
- OSQAR [39]
- PVLAS [40]
- SAPPHIRES [41]
- ALPS-II (projection) [42]
- IAXO (projection) [43]
- IAXO (Galactic SN) [44]

Astro

- Bullet Cluster (archival radio data) [45]
- Chandra (Hydra) [46]
- Chandra (M87) [47]
- Chandra (NG7 1275) [48]
- Chandra (H1821+643) [49]
- Chandra (Magnetic white dwarfs) [49]
- Diffuse SN ALPs [50] (see also [51])
- Distance ladder [52]
- Fermi-LAT (NGC 1275) [53]
- Fermi-LAT (Extragalactic SNe) [54]
- HESS (PKS 2155-304) [55]
- Horizontal branch [56]
- Mrk 421 (ARGO-YBJ+Fermi): [57]
- Neutron Stars (Foster et al.) [58]
- Neutron Stars (Darling) [59]
- Neutron Stars (Battye et al.) [60]
- Solar neutrinos [61]
- SN1987A-γ [62]
- SN1987A-γ (low mass ALPs) [63]
- SN1987A-γ,ν (high mass ALPs) [64]
- Star clusters [65]
- Telescopes (Haystack) [66]
- Telescopes (MUSE) [67]
- Telescopes (VIMOS) [68]
- Fermi galactic SN (projection) [69]
- THESEUS (projection) [70]
- eROSITA (projection) [71]
- White dwarf initial-final mass relation [72]
- XMM-Newton (decaying DM ALPs) [73]

Cosmology

- Ionisation fraction, EBL, X-rays [74]
- BBN+$N_{\rm eff}$ [75]

2 Axion-electron

- EDELWEISS [76]
- Magnon non-demolition [77]
- LUX [78]
- Panda-X [79]
- SuperCDMS [80]
- XENON1T [81, 82]
- XENON1T (Solar basin) [83]
- Red giants (ωCen) [84]
- Solar neutrinos [85]
- Magnons (projection) [86]
- Polaritons (projection) [87]
- DARWIN (projection) [88]
- LZ (projection) [89]
- QUAX [90, 91]
- Semiconductors (projection) [92]
- White dwarf hint [93]

3 Axion-nucleon

Note: CASPEr and nEDM limits account for stochastic correction reported in [94]

- CASPEr-ZULF-Comagnetometer [95]
- CASPEr-ZULF-Sidechain [96]
- nEDM (ultracold neutrons and mercury) [97]
- NASDUCK [98]
- K-3He comagnetometer [99]
- Old comagnetometers [100]
- Torsion balance [101]
- Hot Neutron Star (HESS J1731-347) [102]
- SN1987A Cooling [103]
- SNO (deuterium dissasociation) [104]
- Proton storage ring (projection) [105]
- DM comagnetometer (projection) [100]
- CASPEr-wind (projection) [96]

4 Axion-EDM

- CASPEr-electric [106]
- nEDM [97]
- SN1987A [107]
- CASPEr-electric (projection) [108]
- Storage Ring EDM (projection) [108]

5 Axion mass versus f_a

- BBN [109]
- Binary pulsars and Solar core constraint on $\tilde{\theta}$ [110]. I include minor numerical corrections made by [111, 112].
- GW170817 [113]
- nEDM [97]
- SN1987A [114]
- Neutron stars (projection) [110].
- NS-NS and NS-BH Inspirals (projection) [110].

6 Axion mass theory predictions

- Ballesteros et al. [115]
- Buschmann et al. 2020 [116]
- Buschmann et al. 2021 [117]
- Bonati et al. [118]
- Borsanyi et al. [119]
- Berkowitz et al. [120]
- Dine et al. [121]
- Petreczky et al. [122]
- Fleury & Moore [123]
- Klaer & Moore [124]

7 CP-violating couplings

Combined constraints [125]

Scalar-nucleon

- Red giants [126]
- MICROSCOPE [127].
- Eot-Wash [128, 129, 130]
- Irvine [131]. Corrected to 2σ limit by [132]
- HUST [133, 134, 135, 136].
- Stanford [137]
- IUPUI [138].
- Wuhan [132]

Pseudoscalar-electron

- Red giants [126]
- Eot-wash [139]
- NIST [140]
- SMILE [141].
- QUAX [142, 143]
- Washington [144, 145].
- XENON1T [146]
- Magnon (projection) [87]
- QUAX (projection) [142].

Pseudoscalar-nucleon

- Neutron star cooling [102]
- Washington [147]. Limit taken from [148].
- SMILE [141].
- Mainz [149]
- ARIADNE (projection) [150]
- CASPEr-wind (projection) [108]
- DM comagnetometer (projection) [100]

8 Black hole superradiance

- Baryakhtar et al. [151] (just Stellar mass BHs)
- Mehta et al. [151] (Stellar mass and SMBHs)
- Stott [152]
- Cardoso et al. [153] (dark photon)

9 Dark photons

Combined constraints [154]

SM photon-DP transitions

- Coulomb [155, 156, 157, 158, 159],
- Plimpton & Lawton's experiment [160, 159]
- Atomic spectroscopy [161]
- Atomic force microscopy (AFM) [159]
- Static magnetic field of the Earth [162, 163]
- Static magnetic field of Jupiter [164, 163].
- ALPs [35]
- SPring-8 [165]
- UWA-LSW [166, 167]
- ADMX-LSW [168]
- CROWS [38].
- TEXONO [169]
- Crab nebula [170]
- COBE and FIRAS [171]

Production in stars

- CAST [172]
- SHIP [173]
- HB and RG stars [174]
- Neutron stars [175]
- Solar neutrinos [176]

Dark matter cosmology/astro

- Arias et al. [177]
- Witte et al. [178, 179]
- Caputo et al. [180, 171],
- IGM [181],
- Leo T dwarf [182]
- Gas clouds [183]

Dark matter experiments

- Reinterpreted axion limits [154]
- DAMIC [184]
- Dark E-field Radio [185]
- DM Pathfinder [186]
- FUNK [187]
- LAMPOST [188]
- SENSEI [189]
- SHUKET [190]
- SuperCDMS [191]
- SuperMAG [192, 193]
- SQuAD [194],
- Tokyo dish antennae experiments [195, 196, 197]
- WISPDMX [198]
- XENON1T/XENON100 [92, 146, 199, 200].

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