References for AxionLimits webpage

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1 Axion-photon

Haloscopes

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

LSW/Helioscopes

- ALPS [34]
- CAST [35, 36]
- CROWS [37]
- OSQAR [38]
- PVLAS [39]
- ALPS-II (projection) [40]
- IAXO (projection) [41]
- IAXO (Galactic SN) [42]

Astro

- Bullet Cluster (archival radio data) [43]
- Chandra (Hydra) [44]
- Chandra (M87) [45]
- Chandra (NG7 1275) [46]
- Chandra (H1821+643) [47]
- Chandra (Magnetic white dwarfs) [47]
- Diffuse SN ALPs [48]
- Distance ladder [49]
- Fermi-LAT (NGC 1275) [50]
- Fermi-LAT (Extragalactic SNe) [51]
- HESS (PKS 2155-304) [52]
- Horizontal branch [53]
- Mrk 421 (ARGO-YBJ+Fermi): [54]
- Neutron Stars (Foster et al.) [55]
- Neutron Stars (Darling) [56]
- Neutron Stars (Battye et al.) [57]
- Solar neutrinos [58]
- SN1987A-γ [59]
- SN1987A-γ (low mass ALPs) [60]
- SN1987A-γ,ν (high mass ALPs) [61]
- Star clusters [62]
- Telescopes (Haystack) [63]
- Telescopes (MUSE) [64]
- Telescopes (VIMOS) [65]
- Fermi galactic SN (projection) [66]
- THESEUS (projection) [67]
- eROSITA (projection) [68]
- White dwarf initial-final mass relation [69]

Cosmology

- Ionisation fraction, EBL, X-rays [70]
- BBN+$N_{\rm eff}$ [71]

2 Axion-electron

- EDELWEISS [72]
- Magnon non-demolition [73]
- LUX [74]
- Panda-X [75]
- SuperCDMS [76]
- XENON1T [77, 78]
- XENON1T (Solar basin) [79]
- Red giants (ωCen) [80]
- Solar neutrinos [81]
- Magnons (projection) [82]
- Polaritons (projection) [83]
- DARWIN (projection) [84]
- LZ (projection) [85]
- QUAX [86, 87]
- Semiconductors (projection) [88]
- White dwarf hint [89]

3 Axion-nucleon

Note: CASPEr and nEDM limits account for stochastic correction reported in [90]

- CASPEr-ZULF-Comagnetometer [91]
- CASPEr-ZULF-Sidechain [92]
- nEDM (ultracold neutrons and mercury) [93]
- NASDUCK [94]
- K-3He comagnetometer [95]
- Old comagnetometers [96]
- Torsion balance [97]
- Hot Neutron Star (HESS J1731-347) [98]
- SN1987A Cooling [99]
- SNO (deuterium dissasociation) [100]
- Proton storage ring (projection) [101]
- DM comagnetometer (projection) [96]
- CASPEr-wind (projection) [92]

4 Axion-EDM

- CASPEr-electric [102]
- nEDM [93]
- SN1987A [103]
- CASPEr-electric (projection) [104]
- Storage Ring EDM (projection) [104]

5 Axion mass versus f_a

- BBN [105]
- Binary pulsars and Solar core constraint on $\bar{\theta}$ [106]. I include minor numerical corrections made by [107, 108].
- GW170817 [109]
- nEDM [93]
- SN1987A [110]
- Neutron stars (projection) [106].
- NS-NS and NS-BH Inspirals (projection) [106].

6 CP-violating couplings

Combined constraints [111]

Scalar-nucleon

- Red giants [112]
- MICROSCOPE [113].
- Eot-Wash [114, 115, 116]
- Irvine [117]. Corrected to 2σ limit by [118]
- HUST [119, 120, 121, 122].
- Stanford [123]
- IUPUI [124].
- Wuhan [118]

Pseudoscalar-electron

- Red giants [112]
- Eot-wash [125]
- NIST [126]
- SMILE [127].
- QUAX [128, 129]
- Washington [130, 131].
- XENON1T [132]
- Magnon (projection) [83]
- QUAX (projection) [128].

Pseudoscalar-nucleon

- Neutron star cooling [98]
- Washington [133]. Limit taken from [134].
- SMILE [127].
- Mainz [135]
- ARIADNE (projection) [136]
- CASPEr-wind (projection) [104]
- DM comagnetometer (projection) [96]

7 Black hole superradiance

- Baryakhtar et al. [137] (just Stellar mass BHs)
- Mehta et al. [137] (Stellar mass and SMBHs)
- Stott [138]
- Cardoso et al. [139] (dark photon)

8 Dark photons

Combined constraints [140]

SM photon-DP transitions

- Coulomb [141, 142, 143, 144, 145],
- Plimpton & Lawton's experiment [146, 145]
- Atomic spectroscopy [147]
- Atomic force microscopy (AFM) [145]
- Static magnetic fields of the Earth [148]
- Static magnetic fields of the Jupiter [149].
- ALPs [34]
- SPring-8 [150]
- UWA-LSW [151, 152]
- ADMX-LSW [153]
- CROWS [37].
- TEXONO [154]
- Crab nebula [155]
- COBE and FIRAS [156]

Production in stars

- CAST [157]
- SHIP [158]
- HB and RG stars [159]
- Neutron stars [160]
- Solar neutrinos [161]

Dark matter cosmology/astro

- Arias et al. [162]
- Witte et al. [163, 164]
- Caputo et al. [165, 156],
- IGM [166],
- Leo T dwarf [167]
- Gas clouds [168]

Dark matter experiments

- Reinterpreted axion limits [140]
- DAMIC [169]
- Dark E-field Radio [170]
- DM Pathfinder [171]
- FUNK [172]
- SENSEI [173]
- SHUKET [174]
- SuperCDMS [175]
- SuperMAG [176, 177]
- SQuAD [178],
- Tokyo dish antennae experiments [179, 180, 181]
- WISPDMX [182]
- XENON1T/XENON100 [88, 132, 183, 184].

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