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]
- SAPPHIRES [40]
- ALPS-II (projection) [41]
- IAXO (projection) [42]
- IAXO (Galactic SN) [43]

Astro

- Bullet Cluster (archival radio data) [44]
- Chandra (Hydra) [45]
- Chandra (M87) [46]
- Chandra (NG7 1275) [47]
- Chandra (H1821+643) [48]
- Chandra (Magnetic white dwarfs) [48]
- Diffuse SN ALPs [49] (see also [50])
- Distance ladder [51]
- Fermi-LAT (NGC 1275) [52]
- Fermi-LAT (Extragalactic SNe) [53]
- HESS (PKS 2155-304) [54]
- Horizontal branch [55]
- Mrk 421 (ARGO-YBJ+Fermi): [56]
- Neutron Stars (Foster et al.) [57]
- Neutron Stars (Darling) [58]
- Neutron Stars (Battye et al.) [59]
- Solar neutrinos [60]
- SN1987A-γ [61]
- SN1987A-γ (low mass ALPs) [62]
- SN1987A-γ,ν (high mass ALPs) [63]
- Star clusters [64]
- Telescopes (Haystack) [65]
- Telescopes (MUSE) [66]
- Telescopes (VIMOS) [67]
- Fermi galactic SN (projection) [68]
- THESEUS (projection) [69]
- eROSITA (projection) [70]
- White dwarf initial-final mass relation [71]

Cosmology

- Ionisation fraction, EBL, X-rays [72]
- BBN+$N_{\rm eff}$ [73]

2 Axion-electron

- EDELWEISS [74]
- Magnon non-demolition [75]
- LUX [76]
- Panda-X [77]
- SuperCDMS [78]
- XENON1T [79, 80]
- XENON1T (Solar basin) [81]
- Red giants (ωCen) [82]
- Solar neutrinos [83]
- Magnons (projection) [84]
- Polaritons (projection) [85]
- DARWIN (projection) [86]
- LZ (projection) [87]
- QUAX [88, 89]
- Semiconductors (projection) [90]
- White dwarf hint [91]

3 Axion-nucleon

Note: CASPEr and nEDM limits account for stochastic correction reported in [92]

- CASPEr-ZULF-Comagnetometer [93]
- CASPEr-ZULF-Sidechain [94]
- nEDM (ultracold neutrons and mercury) [95]
- NASDUCK [96]
- K-3He comagnetometer [97]
- Old comagnetometers [98]
- Torsion balance [99]
- Hot Neutron Star (HESS J1731-347) [100]
- SN1987A Cooling [101]
- SNO (deuterium dissasociation) [102]
- Proton storage ring (projection) [103]
- DM comagnetometer (projection) [98]
- CASPEr-wind (projection) [94]

4 Axion-EDM

- CASPEr-electric [104]
- nEDM [95]
- SN1987A [105]
- CASPEr-electric (projection) [106]
- Storage Ring EDM (projection) [106]

5 Axion mass versus f_a

- BBN [107]
- Binary pulsars and Solar core constraint on $\tilde{\theta}$ [108]. I include minor numerical corrections made by [109, 110].
- GW170817 [111]
- nEDM [95]
- SN1987A [112]
- Neutron stars (projection) [108].
- NS-NS and NS-BH Inspirals (projection) [108].

6 CP-violating couplings

Combined constraints [113]

Scalar-nucleon

- Red giants [114]
- MICROSCOPE [115].
- Eot-Wash [116, 117, 118]
- Irvine [119]. Corrected to 2σ limit by [120]
- HUST [121, 122, 123, 124].
- Stanford [125]
- IUPUI [126].
- Wuhan [120]

Pseudoscalar-electron

- Red giants [114]
- Eot-wash [127]
- NIST [128]
- SMILE [129].
- QUAX [130, 131]
- Washington [132, 133].
- XENON1T [134]
- Magnon (projection) [85]
- QUAX (projection) [130].

Pseudoscalar-nucleon

- Neutron star cooling [100]
- Washington [135]. Limit taken from [136].
- SMILE [129].
- Mainz [137]
- ARIADNE (projection) [138]
- CASPEr-wind (projection) [106]
- DM comagnetometer (projection) [98]

7 Black hole superradiance

- Baryakhtar et al. [139] (just Stellar mass BHs)
- Mehta et al. [139] (Stellar mass and SMBHs)
- Stott [140]
- Cardoso et al. [141] (dark photon)

8 Dark photons

Combined constraints [142]

SM photon-DP transitions

- Coulomb [143, 144, 145, 146, 147],
- Plimpton & Lawton's experiment [148, 147]
- Atomic spectroscopy [149]
- Atomic force microscopy (AFM) [147]
- Static magnetic field of the Earth [150, 151]
- Static magnetic field of Jupiter [152, 151].
- ALPs [34]
- SPring-8 [153]
- UWA-LSW [154, 155]
- ADMX-LSW [156]
- CROWS [37].
- TEXONO [157]
- Crab nebula [158]
- COBE and FIRAS [159]

Production in stars

- CAST [160]
- SHIP [161]
- HB and RG stars [162]
- Neutron stars [163]
- Solar neutrinos [164]

Dark matter cosmology/astro

- Arias et al. [165]
- Witte et al. [166, 167]
- Caputo et al. [168, 159],
- IGM [169],
- Leo T dwarf [170]
- Gas clouds [171]

Dark matter experiments

- Reinterpreted axion limits [142]
- DAMIC [172]
- Dark E-field Radio [173]
- DM Pathfinder [174]
- FUNK [175]
- LAMPOST [176]
- SENSEI [177]
- SHUKET [178]
- SuperCDMS [179]
- SuperMAG [180, 181]
- SQuAD [182],
- Tokyo dish antennae experiments [183, 184, 185]
- WISPDMX [186]
- XENON1T/XENON100 [90, 134, 187, 188].

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