

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]
- KLASHER (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

- Chandra (Hydra) [43]
- Chandra (M87) [44]
- Chandra (NGC 1275) [45]
- Chandra (H1821+643) [46]
- Diffuse SN ALPs [47]
- Distance ladder [48]
- Fermi-LAT (NGC 1275) [49]
- Fermi-LAT (Extragalactic SNe) [50]
- HESS (PKS 2155-304) [51]
- Horizontal branch [52]
- Mrk 421 (ARGO-YBJ+Fermi): [53]
- Neutron Stars (Foster et al.) [54]
- Neutron Stars (Darling) [55]
- Neutron Stars (Battye et al.) [56]
- Solar neutrinos [57]
- SN1987A (gamma) [58]
- SN1987A (gamma) (low mass ALPs) [59]
- SN1987a (gamma/nu) (high mass ALPs) [60]
- Star clusters [61]
- Telescopes (MUSE) [62]
- Telescopes (VIMOS) [63]
- Fermi galactic SN (projection) [64]
- THESEUS (projection) [65]
- eROSITA (projection) [66]

Cosmology

- Ionisation fraction, EBL, X-rays [67]
- BBN+N_{eff} [68]

2 Axion-electron

- EDELWEISS [69]
- Magnon non-demolition [70]
- LUX [71]
- Panda-X [72]
- SuperCDMS [73]
- XENON1T [74, 75]
- XENON1T (Solar basin) [76]
- Red giants (ω Cen) [77]
- Solar neutrinos [78]
- Magnons (projection) [79]
- Polaritons (projection) [80]
- DARWIN (projection) [81]
- LZ (projection) [82]
- QUAX [83, 84]
- Semiconductors (projection) [85]
- White dwarf hint [86]

3 Axion-nucleon

Note: CASPER and nEDM limits account for stochastic correction reported in [87]

- CASPER-ZULF-Comagnetometer [88]
- CASPER-ZULF-Sidechain [89]
- nEDM (ultracold neutrons and mercury) [90]
- NASDUCK [91]
- K-3He comagnetometer [92]
- Old comagnetometers [93]
- Torsion balance [94]
- Hot Neutron Star (HESS J1731-347) [95]
- SN1987A Cooling [96]
- SNO (deuterium dissasociation) [97]
- Proton storage ring (projection) [98]
- DM comagnetometer (projection) [93]
- CASPER-wind (projection) [89]

4 Axion-EDM

- CASPER-electric [99]
- nEDM [90]
- SN1987A [100]
- CASPER-electric (projection) [101]
- Storage Ring EDM (projection) [101]

5 Axion mass versus f_a

- BBN [102]
- Binary pulsars and Solar core constraint on $\bar{\theta}$ [103]. I include minor numerical corrections made by [104, 105].
- GW170817 [106]
- nEDM [90]
- SN1987A [107]
- Neutron stars (projection) [103].
- NS-NS and NS-BH Inspirals (projection) [103].

6 CP-violating couplings

Combined constraints [108]

Scalar-nucleon

- Red giants [109]
- MICROSCOPE [110].
- Eot-Wash [111, 112, 113]
- Irvine [114]. Corrected to 2σ limit by [115]
- HUST [116, 117, 118, 119].
- Stanford [120]
- IUPUI [121].
- Wuhan [115]

Pseudoscalar-electron

- Red giants [109]
- Eot-wash [122]
- NIST [123]
- SMILE [124].
- QUAX [125, 126]
- Washington [127, 128].
- XENON1T [129]
- Magnon (projection) [80]
- QUAX (projection) [125].

Pseudoscalar-nucleon

- Neutron star cooling [95]
- Washington [130]. Limit taken from [131].
- SMILE [124].
- Mainz [132]
- ARIADNE (projection) [133]
- CASPEr-wind (projection) [101]
- DM comagnetometer (projection) [93]

7 Black hole superradiance

- Baryakhtar et al. [134] (just Stellar mass BHs)
- Mehta et al. [134] (Stellar mass and SMBHs)
- Stott [135]
- Cardoso et al. [136] (dark photon)

8 Dark photons

Combined constraints [137]

SM photon-DP transitions

- Coulomb [138, 139, 140, 141, 142],
- Plimpton & Lawton's experiment [143, 142]
- Atomic spectroscopy [144]
- Atomic force microscopy (AFM) [142]
- Static magnetic fields of the Earth [145]
- Static magnetic fields of the Jupiter [146].
- ALPs [34]
- SPring-8 [147]
- UWA-LSW [148, 149]
- ADMX-LSW [150]
- CROWS [37].
- TEXONO [151]
- Crab nebula [152]
- COBE and FIRAS [153]

Production in stars

- CAST [154]
- SHIP [155]
- HB and RG stars [156]
- Neutron stars [157]
- Solar neutrinos [158]

Dark matter cosmology/astro

- Arias et al. [159]
- Witte et al. [160, 161]
- Caputo et al. [162, 153],
- IGM [163],
- Leo T dwarf [164]
- Gas clouds [165]

Dark matter experiments

- Reinterpreted axion limits [137]
- DAMIC [166]
- Dark E-field Radio [167]
- DM Pathfinder [168]
- FUNK [169]
- SENSEI [170]
- SHUKET [171]
- SuperCDMS [172]
- SuperMAG [173, 174]
- SQuAD [175],
- Tokyo dish antennae experiments [176, 177, 178]
- WISPDMS [179]
- XENON1T/XENON100 [85, 129, 180, 181].

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