

## 1 Axion-photon

### Haloscopes

- ABRACADABRA [1, 2]
- ADMX [3, 4, 5, 6, 7, 8]
- CAPP [9, 10, 11]
- HAYSTAC [12, 13]
- ORGAN [14]
- QUAX [15, 16]
- RADES [17]
- RBF [18]
- SHAFT [19]
- UF [20]

### LSW/Helioscopes

- ALPS [21]
- CAST [22, 23]
- CROWS [24]
- OSQAR [25]
- PVLAS [26]

### Astro

- Chandra (HYDRA) [27]
- Chandra (M87) [28]
- Chandra (NGC 1275) [29]
- Diffuse SN ALPs [30]
- Distance ladder [31]
- Fermi-LAT (NGC 1275) [32]
- Fermi-LAT (Extragalactic SNe) [33]
- HESS (PKS 2155-304) [34]
- Horizontal branch [35]
- Mrk 421 (ARGO-YBJ+Fermi): [36]
- Neutron Stars (Foster et al.) [37]
- Neutron Stars (Darling) [38]
- Solar neutrinos [39]
- SN1987 (decay) [40]
- SN1987 (gamma) [41]
- Star clusters [42]
- Telescopes (MUSE) [43]
- Telescopes (VIMOS) [44]

### Cosmology

- Cosmology (ionisation fraction, EBL, X-rays) [45]
- BBN+ $N_{\text{eff}}$  [46]

## 2 Axion-electron

- EDELWEISS [47]
- LUX [48]
- Panda-X [49]
- SuperCDMS [50]
- XENON1T [51, 52]
- XENON1T (Solar basin) [53]
- Red giants ( $\omega$ Cen) [54]
- Solar neutrinos [55]

## 3 Axion-neutron/proton

Note: CASPER and nEDM limits account for stochastic correction reported in [56]

- CASPER-ZULF-Comagnetometer [57]
- CASPER-ZULF-Sidechain [58]
- nEDM (ultracold neutrons and mercury) [59]
- NASDUCK [60]
- K-3He comagnetometer [61]
- Old comagnetometers [62]
- Torsion balance [63]
- Hot Neutron Star (HESS J1731-347) [64]
- SN1987 Cooling [65]
- SNO (deuterium dissasociation) [66]

## 4 Axion-EDM

- CASPER-electric [67]
- CASPER-electric (projection) [68]
- nEDM [69]
- SN1987A [70]

## 5 CP-violating couplings

### Scalar-nucleon

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### Pseudoscalar-electron

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### Pseudoscalar-nucleon

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## 6 Axion mass versus $f_a$

- Binary pulsars and Solar core constraint on  $\bar{\theta}$  [71]. I include minor numerical corrections made by [72, 73].
- nEDM [69]
- SN1987A [74]

## 7 Black hole superradiance

- Baryakhtar et al. [75] (just Stellar mass BHs)
- Mehta et al. [75] (Stellar mass and SMBHs)
- Stott [76]

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