Oscillation period,  $T = 2\pi/m_a$ 100 years 1 year 1 day 1 hour 1 min 1 s  $10^{-9}$  $10^{-10}$  $\frac{10^{-10}}{10^{-11}} \frac{8uildnoo uotoud}{10^{-12}} \frac{8uildnoo uotoud}{10^{-13}} \frac{10^{-13}}{10^{-16}}$ Hydra A BICEP/KECK Sgr A\* Super star clusters PSR J0437-4715 **M87** H1821+643  $10^{-13}$ **ATHENA**  $10^{-14}$  $10^{-15}$ DANCE  $10^{-16}$ Fuzzy DM 10-21  $10^{-19} \quad 10^{-18}$  $10^{-20}$  $10^{-22}$  $10^{-23}$  $10^{-17}$  $10^{-16}$  $10^{-15}$  $10^{-14}$  $10^{-24}$ Axion mass,  $m_a$  [eV]