



$a = 0.1$



$a = 0.5$



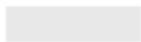
$a = 1$



$a = 5$



$a = 4\pi$



XENON1T(2018)



Unitarity constraints



$\Omega_{\text{DM}} h^2 = \Omega_{\text{PLANCK}} h^2$