

$$\text{Signal} \sim 10^{-11} \frac{W}{\text{m}^2} \left(\frac{10^{16} \text{ GeV}}{f_a} \right)^2 \left(\frac{B}{10^8 \text{ Gauss}} \right)^2 \left(\frac{1 \text{ kpc}}{r} \right)^2$$