

$$\Phi(D) = \Phi_0 \int_{E_{th}}^{m_\chi} \frac{dN}{dE} dE \left(\frac{\sigma v}{10^{-26} \text{cm}^3 \text{s}^{-1}} \right) \left(\frac{m_\chi}{100 \text{ GeV}} \right)^{-2} \left(\frac{D}{\text{kpc}} \right)^{-2} \left(\frac{\rho(r_{sp})}{10^2 \text{GeV cm}^{-3}} \right)^2 \left(\frac{r_{sp}}{\text{pc}} \right)^{\frac{14}{3}} \left(\frac{r_{cut}}{10^{-3} \text{pc}} \right)^{-\frac{5}{3}}$$