

Super symmetry

> 100's GeV in mass

Spin $-\frac{1}{2}$

-ino

photon \rightarrow photino

gluon \rightarrow gluino

W \rightarrow Wino

Z \rightarrow Zino

Spin 0 S-

quark \rightarrow squark

lepton \rightarrow slepton

⋮

Milky Way:

$1 \text{ star}/\text{pc}^3$

$V = 200 \text{ km/s}$

$2 \cdot 10^5 \text{ m/s}$

$2\pi R = 2\pi 8 \text{ kpc} = 48 \cdot 3 \cdot 10^{19}$

$2\pi \cdot 2.4 \cdot 10^{20} \text{ m}$

$\approx 1.5 \cdot 10^{21} \text{ m}$

$7 \cdot 10^{15} \text{ s} \approx 2 \cdot 10^8 \text{ yr}$