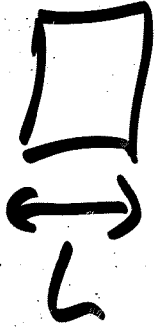


$$\underline{L_p \sim 10^{-33} \text{ cm}}$$



$$E \sim \frac{1}{L}$$



$$E \sim M_p$$

$$r_g = L_p$$

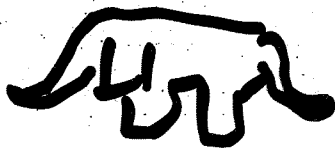
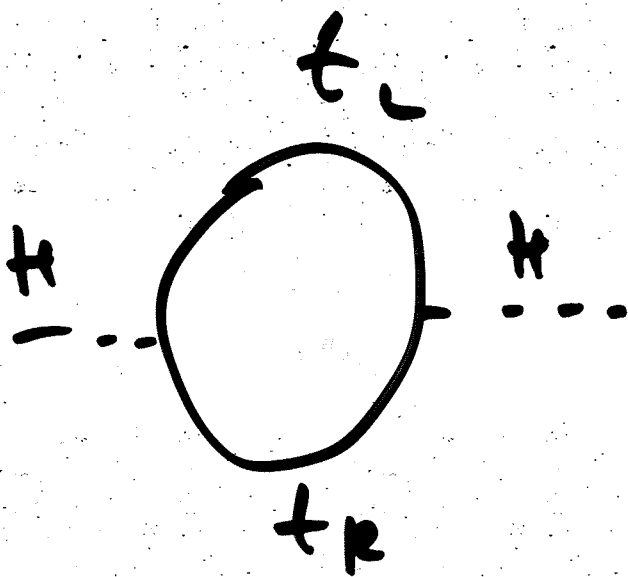
$$\underline{M \gg M_p}$$

$$m_e \propto m_e \ln \Lambda$$

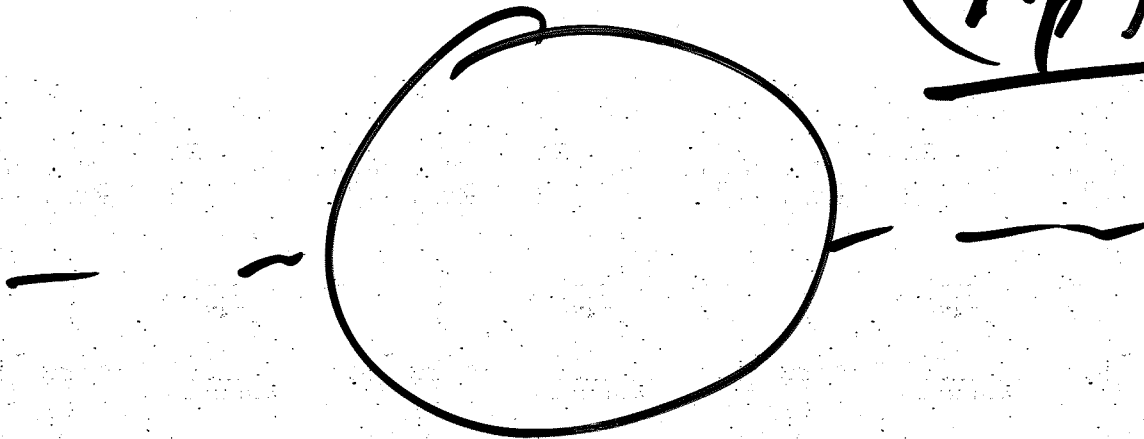
$$L$$

$$\bar{L}' \equiv \Lambda$$

$$\underline{m_H^2 \propto \Lambda^2}$$



$$\underline{\left(\frac{m_W^2}{M_p^2} \right) \sim 10^{-32}}$$



$$\frac{L_{\text{Human}}}{L_H} \sim 10^{-26}$$

$$L_{\text{LHC}} \sim 10^{-17} \text{ cm}$$

①

SUSY

②

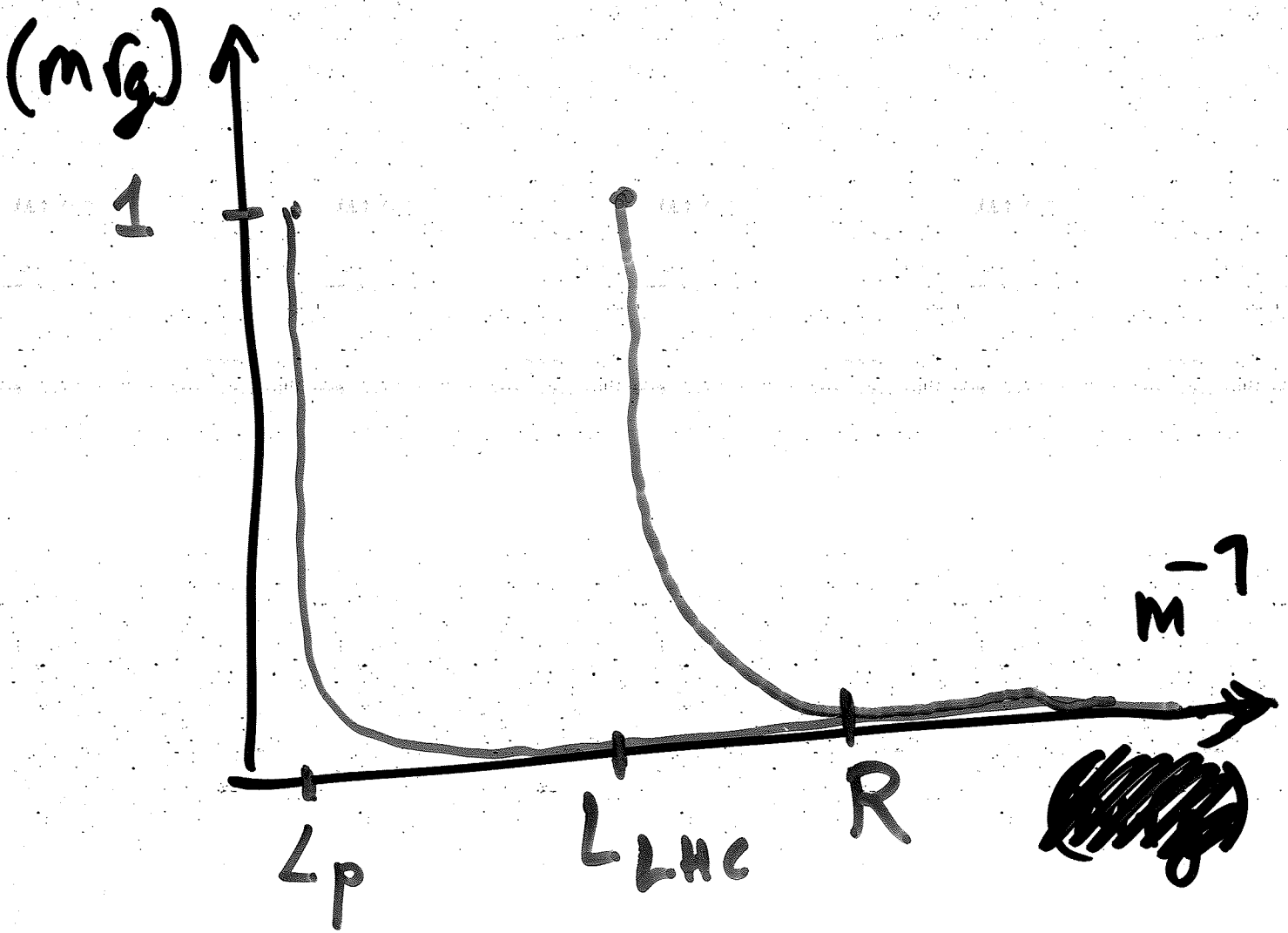
Composite Higgs

(Technicolor)

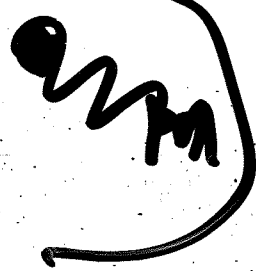
③

Strong Gravity at

TeV



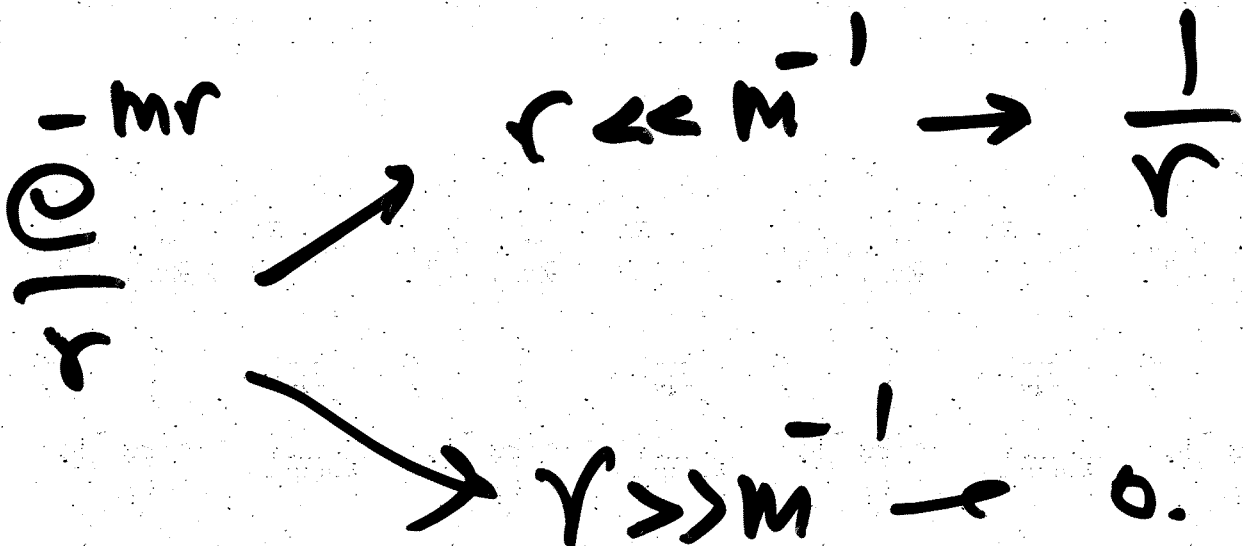
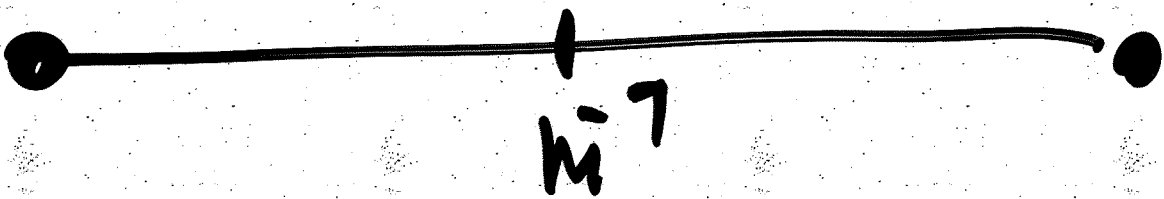
$(M_* \sim TeV)$

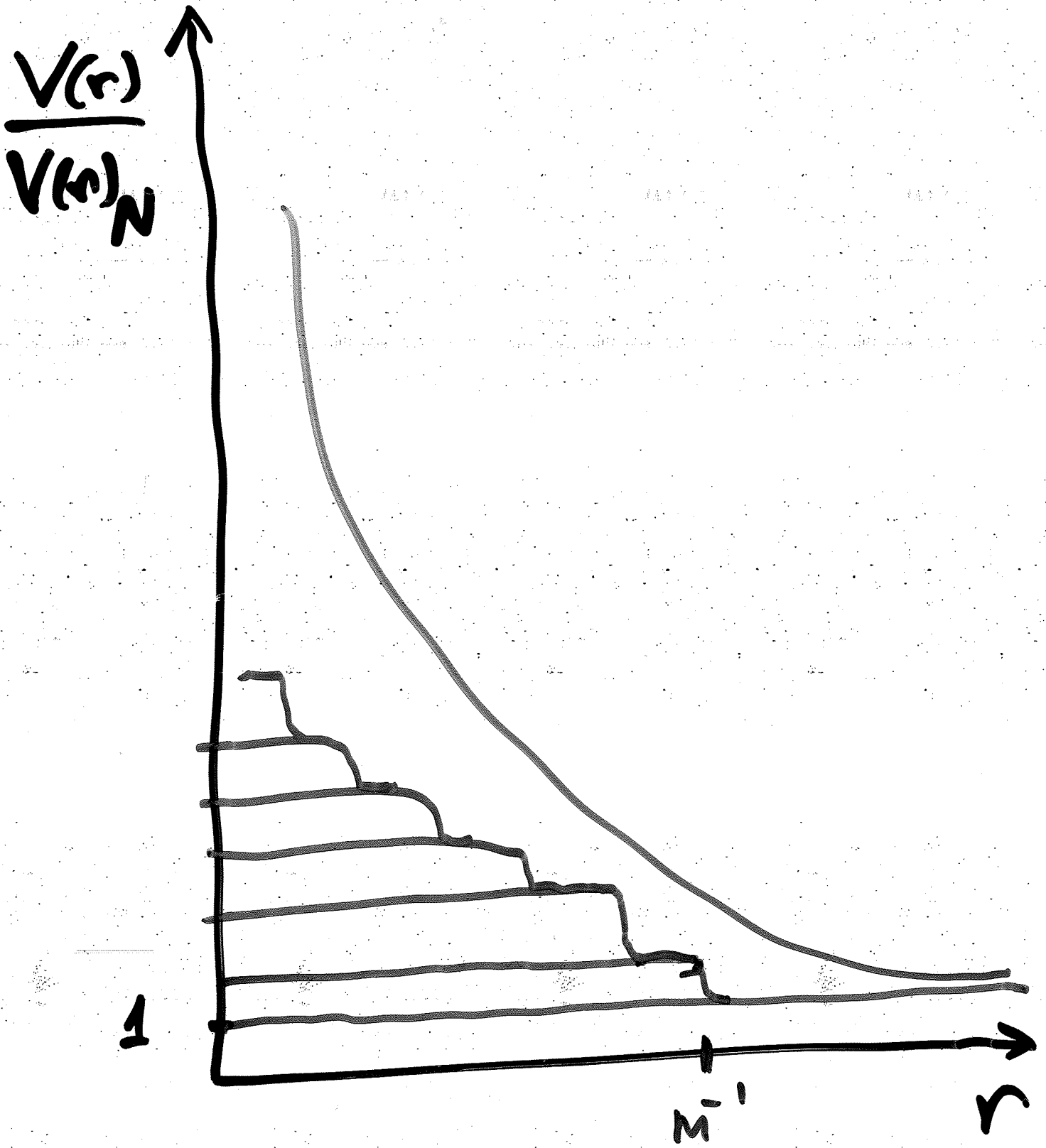


$V(r)$ massless $\propto \frac{1}{r}$

$V(r)$ massive $\propto \frac{e^{-mr}}{r}$

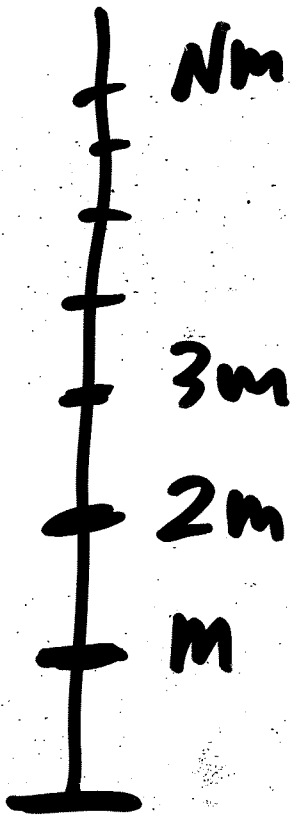
$$\frac{e^{-mr}}{r}$$







m



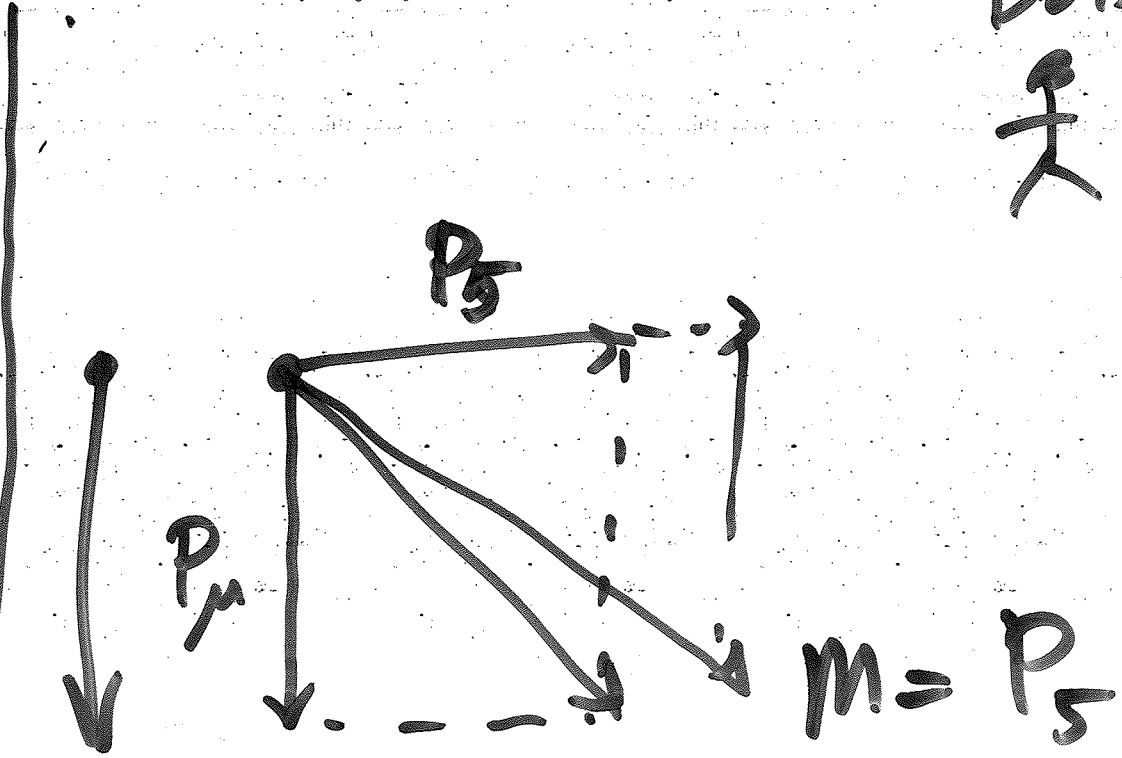
5D

X_A $A = \mu, 5$

P_A

Alice

Bob



$$P_A P_A = 0$$

$$P_\mu P^\mu - \underbrace{P_5^2}_{\text{circled}} = 0$$

$$X_5 = 0$$

$$P_\mu P^\mu - m^2 = 0$$



$$P_s = \frac{n}{R}$$

$$n = 0, 1, \dots$$

$$P_m P_n - \left(\frac{n}{R}\right)^2 = 0$$