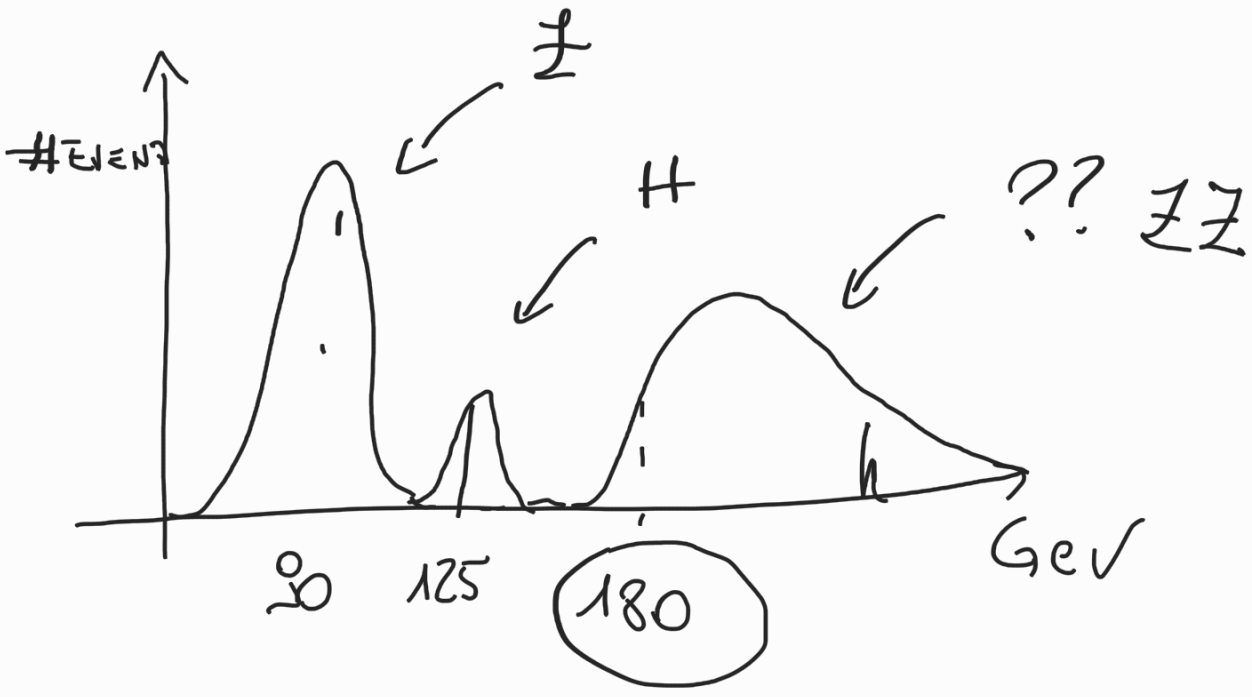


$$R = \frac{\#e}{\#\mu} \sim 1 \quad 0,97$$

$W \to e\nu \qquad W \to \mu\nu$

$Z \to ee \qquad Z \to \mu\mu$

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$m_e \ll m_\mu$

0.5 MeV 106 MeV

0,106 GeV

quark di valenza

$$\frac{\#W^+}{\#W^-} \sim \frac{3}{2}$$

p u u d

$+\frac{2}{3} + \frac{2}{3} - \frac{1}{3} = 1$

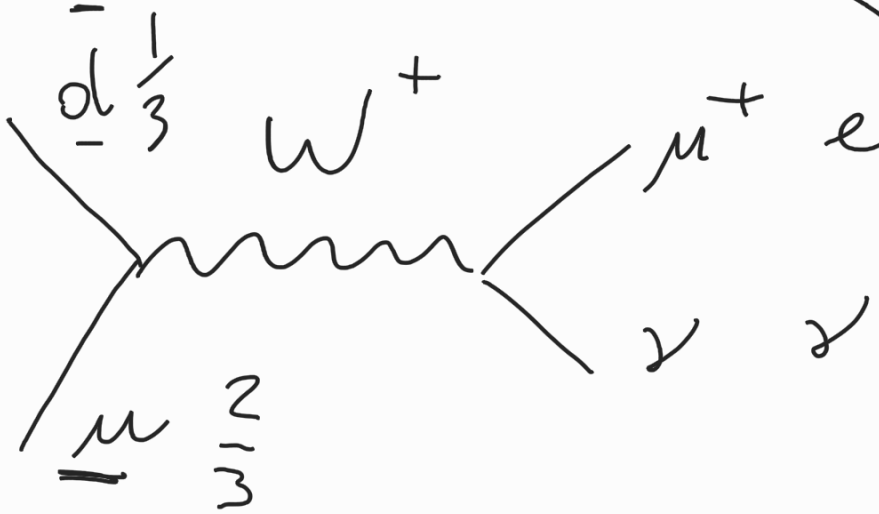
quark del more

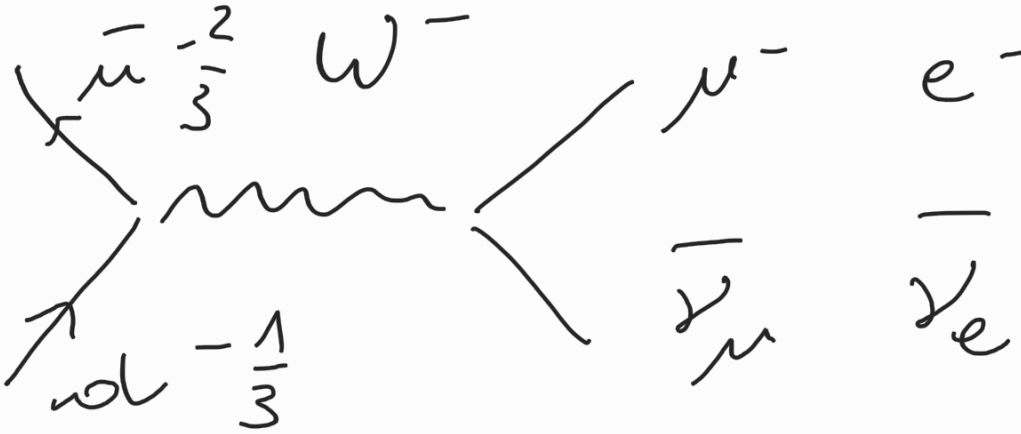
$u, d, s, c$

$\bar{u}, \bar{d}, \bar{s}, \bar{c}$

$W \to \mu\nu$

$e\nu$




$W^+$

$u(val) + \bar{d}(more)$

3 possib.

$u$ (val) + $\bar{d}$ (more)

$u$ (more) + $\bar{d}$ (more)

$W^-$

$d$ (val) + $\bar{u}$ (more) 2possib.

$d$ (more) + $\bar{u}$ (more)

$$\frac{W^+}{W^-} \sim \frac{3}{2}$$

p ⓤud

$\bar{p}$ $\bar{u}\bar{u}$ⓓ

$\Big\}$ $\frac{W^+}{W^-} \sim 1$ in $p\bar{p}$