

Conserved:

Always: $E, \vec{P}, \vec{J}, Q$ (Color, ...)
Baryon number

$$\Delta^+ \rightarrow n + \pi^+$$

Strong IA

$$\boxed{938 \text{ MeV}} \quad p^+ \rightarrow n + \pi^+ \quad \boxed{1080 \text{ MeV}}$$

$uud \quad \quad \quad udd \quad \quad \quad u\bar{d}$

QCD, QED: # of each fundamental Fermion

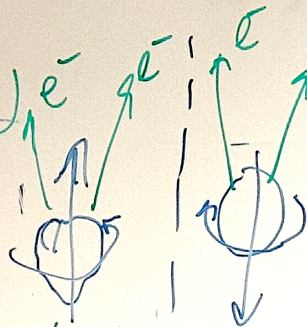
Parity

$$n \rightarrow p + \pi^-$$

$\langle r^2_{\text{charge}} \rangle < 0$

+ Weak IA: lepton $\bar{\nu}_e, e^-$ #c (?) $e^-, \bar{e}^-$

~~Parity~~



$$W^+ \rightarrow e^+ + \nu_e$$

β^+ decay

$$W^- \rightarrow e^- + \bar{\nu}_e$$

β^- decay

