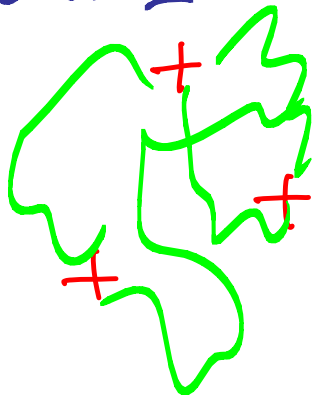
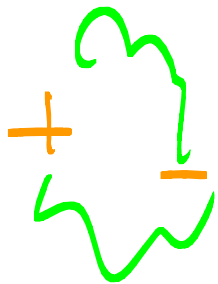


part 2



Baryon = (proton, neutron etc)
3 quarks + gluons
exchange.

3 "color" charges (not \pm
like electric charges)
red / green / blue



2 quark \rightarrow Meson.
"Hadron" = (Baryon, Meson)

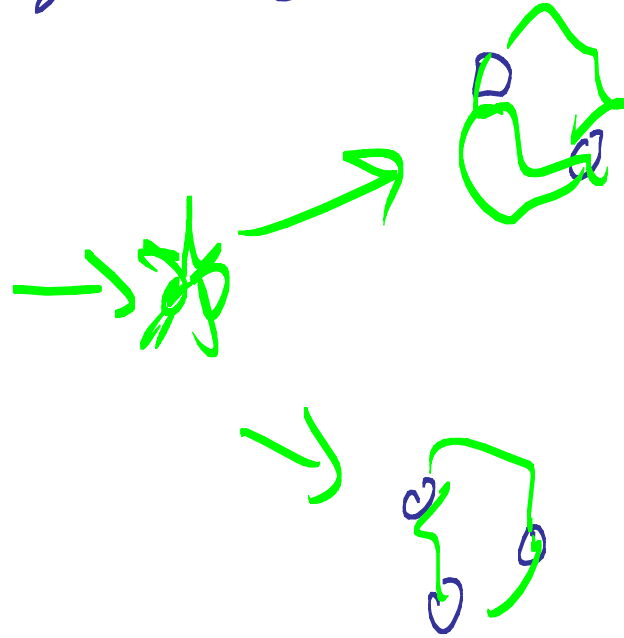
— all Baryons + Mesons are
"colorless" — color charges
cancel out

"quantum Chromodynamics"
QCD.

→ the catch! gluons are
also colored!

— strongly interacting particles
can't be taken apart.

free quarks are never seen!



colorless

colorless

— energy of interaction $\gg m c^2$
for new particles

- QCD works to calculate the outcome of Expts.

- like LHC experiments

Weak interactions of quarks → change "flavors"
responsible for some kinds of radioactive decay

→ neutrinos ONLY interact weakly