

1

Taanis Tamm

Kaartane $E = mc^2$ ja De Broglie = 1

$$p = \frac{hc}{\lambda} \quad \text{ning relativistlik} \quad pc = E$$

$$p = \frac{E}{c}$$

ja kaartane relativistlike viikend

kui $c = 1$

$$p = E = m, \quad E = \frac{h}{\lambda}, \quad \lambda = \frac{h}{E} = 1$$

$$\lambda = \frac{2\pi}{125 \text{ GeV}} \quad h = 1 \quad \text{elk } h = 2\pi$$

$$\lambda = 0.05 \frac{1}{\text{GeV}}$$

on the fotoni lairipikkus kui
tekitab fotoniit.

2

$$\tau = \frac{\hbar}{mc}$$

Naturalkonstanten

$$\tau = \frac{1}{m}$$

$W^+ \text{ ja } W^-$ basen on nubes 80.4 GeV

$$\tau = \frac{1}{80.4 \text{ GeV}}$$

3

$$M(\pi^+) = 0.13957 \text{ GeV}$$

$$M(p) = 0.93827 \text{ GeV}$$

$$M(\bar{u}) = 0.93957 \text{ GeV}$$

$$K = -(0.13957 + 0.93827) + (2 \cdot 0.93827 + 0.93957)$$

$$K = 1.73827 \text{ GeV}$$

4

Taavi Tammern

- 1) laengu jäätumiseaeg on pikemal
- 2) siin pikema aja vältel jäätumise aegust
- 3) siin ei pikenta midagi