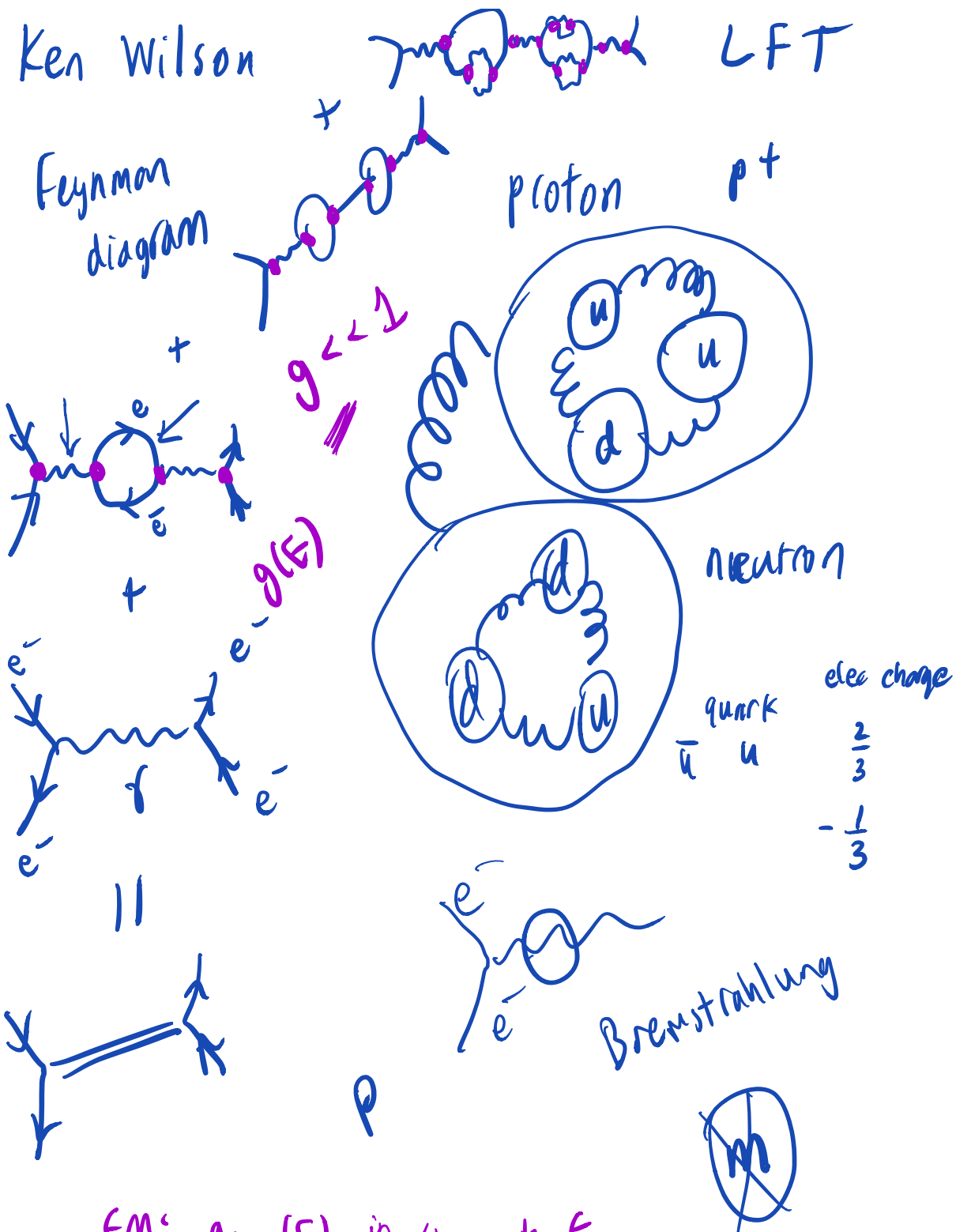
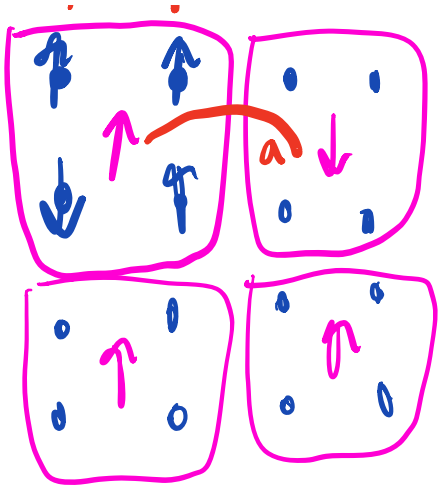

Ken Wilson
LFT
Feynman diagram
proton
p+
neutron
quark
elec charge
Bremstrahlung
EM: $g_{EM}(E)$ increases with E
$g_S(E)$ decreases with E
a

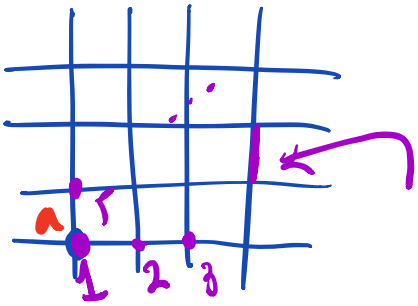


condensed matter physics

$e \quad \frac{1}{2}$

how bits are stored physically

Pauli exclusion principle



a = lattice spacing

$\left(\begin{smallmatrix} 1 & & \\ & 1 & \\ & & 1 \end{smallmatrix}\right)$

$\frac{m_\rho}{m_\pi}$

$\left(\int DU\right)^{(\#\text{ points})(\#\text{ dim})} \quad \left(\int d\psi\, d\psi\right)^{(\#\text{ points})}$

$$\langle O \rangle = \frac{1}{Z} \int DU\, e^{-S[U]}\, O[U]$$

expected value (mean value)

$$\bar{O} = \frac{1}{N_{conf}} \sum_{i=1}^{N_{conf}} O_i \qquad \bar{O} \pm \sigma_O$$

$O_i \qquad O_{i+1000}$