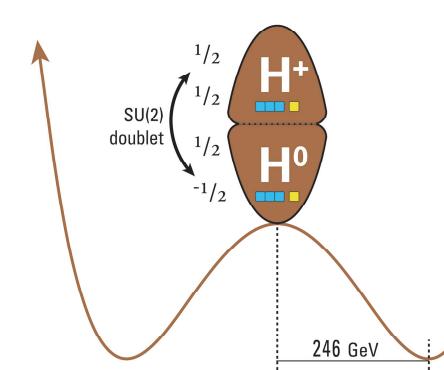
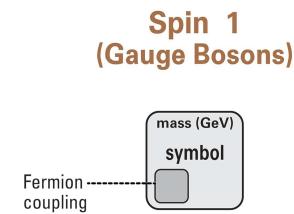
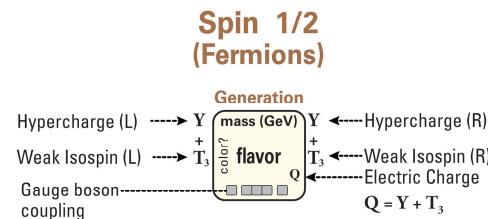
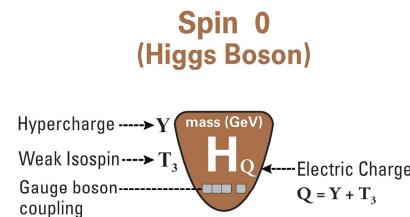


The Standard Model of Particle Physics



Quarks			Leptons
1 st	2 nd	3 rd	
u d	c s	t b	e μ τ
$\frac{1}{2}$ $-\frac{1}{2}$	$\frac{1}{2}$ $-\frac{1}{2}$	$\frac{2}{3}$ 0	$-\frac{1}{3}$ 0 -1
Left handed SU(2) doublet	Left handed SU(2) doublet		

SU(3) _{COLOR}	SU(2) _{LEFT}	U(1) _{HYPERCHARGE}
g	W^1 W^2 W^3	B

$$W^\pm = (W^1 \pm iW^2)/\sqrt{2}$$

$$Z = \cos \theta_w W^3 - \sin \theta_w B$$

$$\gamma = \sin \theta_w W^3 + \cos \theta_w B$$

1 st	2 nd	3 rd
0.0023 0.0048	1.275 0.095	173.07 4.18
u d	c s	t b
$\frac{2}{3}$ $-\frac{1}{3}$	$\frac{2}{3}$ $-\frac{1}{3}$	$\frac{2}{3}$ $-\frac{1}{3}$
m_1 0.000511	M_1 0.105658	M_2 1.77682
v_e e	v_μ μ	v_τ τ
0 -1	0 -1	0 -1

SU(3) _{COLOR}	W^+	W^-	Z	γ	U(1) _{E & M}
g	80.385	80.385	91.1876	Q	

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