

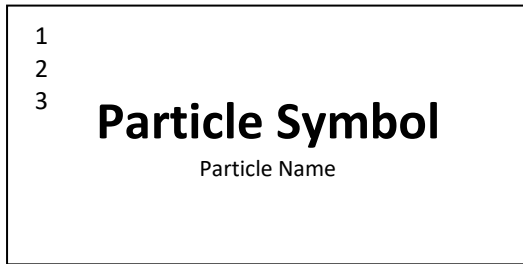
STANDARD MODEL OF ELEMENTARY PARTICLES (D4)

Elementary Fermions		Elementary Antifermions		
Quarks				
I	II	III	I	II
2.16 MeV $\frac{2}{3}$ $-\frac{1}{2}$ u Up	1.27 GeV $\frac{2}{3}$ $\frac{1}{2}$ c Charm	172.69 GeV $\frac{2}{3}$ $\frac{1}{2}$ t Top	2.16 MeV $-\frac{2}{3}$ $\frac{1}{2}$ \bar{u} Antiup	1.27 GeV $-\frac{2}{3}$ $\frac{1}{2}$ \bar{c} Anticharm
4.67 MeV $-\frac{1}{3}$ $\frac{1}{2}$ d Down	93.4 MeV $-\frac{1}{3}$ $\frac{1}{2}$ s Strange	4.18 GeV $-\frac{1}{3}$ $\frac{1}{2}$ b Bottom	4.67 MeV $\frac{1}{3}$ $\frac{1}{2}$ \bar{d} Antidown	93.4 MeV $\frac{1}{3}$ $\frac{1}{2}$ \bar{s} Antistrange
			172.69 GeV $-\frac{2}{3}$ $\frac{1}{2}$ \bar{t} Antitop	4.18 GeV $\frac{1}{3}$ $\frac{1}{2}$ \bar{b} Antibottom
Leptons				
I	II	III	I	II
0.51 MeV -1 $\frac{1}{2}$ e⁻ Electron	105.66 MeV -1 $\frac{1}{2}$ μ^- Muon	1776.86 MeV -1 $\frac{1}{2}$ τ^- Tau	0.51 MeV 1 $\frac{1}{2}$ e⁺ Positron	105.66 MeV 1 $\frac{1}{2}$ μ^+ Antimuon
<460 eV >0 $\frac{1}{2}$ ν_e Electron Neutrino	<0.19 MeV >0 $\frac{1}{2}$ ν_μ Muon Neutrino	<18.2 MeV >0 $\frac{1}{2}$ ν_τ Tau Neutrino	<1.1 eV >0 $\frac{1}{2}$ $\bar{\nu}_e$ Electron Antineutrino	<0.19 MeV >0 $\frac{1}{2}$ $\bar{\nu}_\mu$ Muon Antineutrino
			1776.86 MeV 1 $\frac{1}{2}$ τ^+ Antitau	1776.86 MeV 1 $\frac{1}{2}$ τ^+ Antitau
				<18.2 MeV >0 $\frac{1}{2}$ $\bar{\nu}_\tau$ Tau Antineutrino

Elementary Bosons		Scalar Bosons	
Gauge Bosons		Bosons	
0 0 1	g Gluon	125.25 GeV 0 0	H Higgs
>0 eV >0 1	γ Photon		
91.19 GeV 0 1	Z Z ⁰ Boson		
80.38 GeV 1 1	W⁺ W ⁺ Boson		
80.38 GeV -1 1	W⁻ W ⁻ Boson		

Key:

Elementary Particle Representation:



- 1** Invariant Mass, m , in GeV/c^2 , MeV/c^2 and eV/c^2 (Units Simplified on Diagram)
- 2** Electric Charge, Q , in Elementary Charge Units
- 3** Spin, s

Sources:

- Invariant Mass, 1^[1]
- Electric Charge, 2^[1]
- Spin, 3^[1]
- Particle Symbol^[1]
- Particle Name^[1]