STANDARD MODEL OF ELEMENTARY PARTICLES (D4)

Elementary Fermions Elementary Antifermions

Quarks

I	II	III	I	II	III
≈2.2 MeV/c² ⅔ ½ **u** Up	≈1.28 GeV/c² ⅔ ½ **c** Charm	≈173.1 GeV/c² ⅔ ½ **t** Top	≈2.2 MeV/c² −⅔ ½ $\bar{\mathbf{u}}$ Antiup	≈1.28 GeV/c² −⅔ ½ $\bar{\mathbf{c}}$ Anticharm	≈173.1 GeV/c² −⅔ ½ $\bar{\mathbf{t}}$ Antitop
≈4.7 MeV/c² −⅓ ½ **d** Down	≈96 MeV/c² −⅓ ½ **s** Strange	≈4.18 GeV/c² −⅓ ½ **b** Bottom	≈4.7 MeV/c² ⅓ ½ $\bar{\mathbf{d}}$ Antidown	≈96 MeV/c² ⅓ ½ $\bar{\mathbf{s}}$ Antistrange	≈4.18 GeV/c² ⅓ ½ $\bar{\mathbf{b}}$ Antibottom

Leptons

I	II	III	I	II	III
≈0.511 MeV/c² −1 ½ **e** Electron	≈105.66 MeV/c² −1 ½ **μ** Muon	≈1.7768 GeV/c² −1 ½ **τ** Tau	≈0.511 MeV/c² 1 ½ $\mathbf{e^+}$ Positron	≈105.66 MeV/c² 1 ½ $\bar{\boldsymbol{\mu}}$ Antimuon	≈1.7768 GeV/c² 1 ½ $\bar{\boldsymbol{\tau}}$ Antitau
<2.2 eV/c² 0 ½ $\boldsymbol{\nu_e}$ Electron Neutrino	<0.17 MeV/c² 0 ½ $\boldsymbol{\nu_\mu}$ Muon Neutrino	<18.2 MeV/c² 0 ½ $\boldsymbol{\nu_\tau}$ Tau Neutrino	<2.2 eV/c² 0 ½ $\bar{\boldsymbol{\nu}}_{\mathbf{e}}$ Electron Antineutrino	<0.17 MeV/c² 0 ½ $\bar{\boldsymbol{\nu}}_{\boldsymbol{\mu}}$ Muon Antineutrino	<18.2 MeV/c² 0 ½ $\bar{\boldsymbol{\nu}}_{\boldsymbol{\tau}}$ Tau Antineutrino

Elementary Bosons

Gauge Bosons

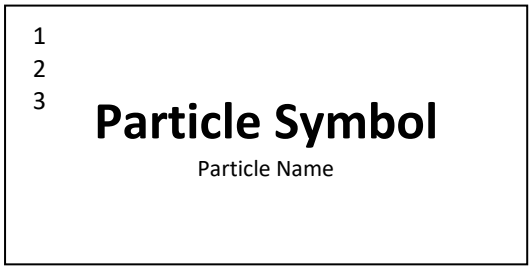
0 0 1 **g** Gluon
0 0 1 **γ** Photon
≈91.19 GeV/c² 0 1 **Z** Z^0 Boson
≈80.39 GeV/c² 1 1 $\mathbf{W^+}$ W^+ Boson
≈80.39 GeV/c² −1 1 $\mathbf{W^-}$ W^- Boson

Scalar Bosons

≈124.97 GeV/c² 0 0 **H** Higgs

Key:

Elementary Particle Representation:



1 Invariant Mass
2 Electric Charge
3 Spin

Sources:

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