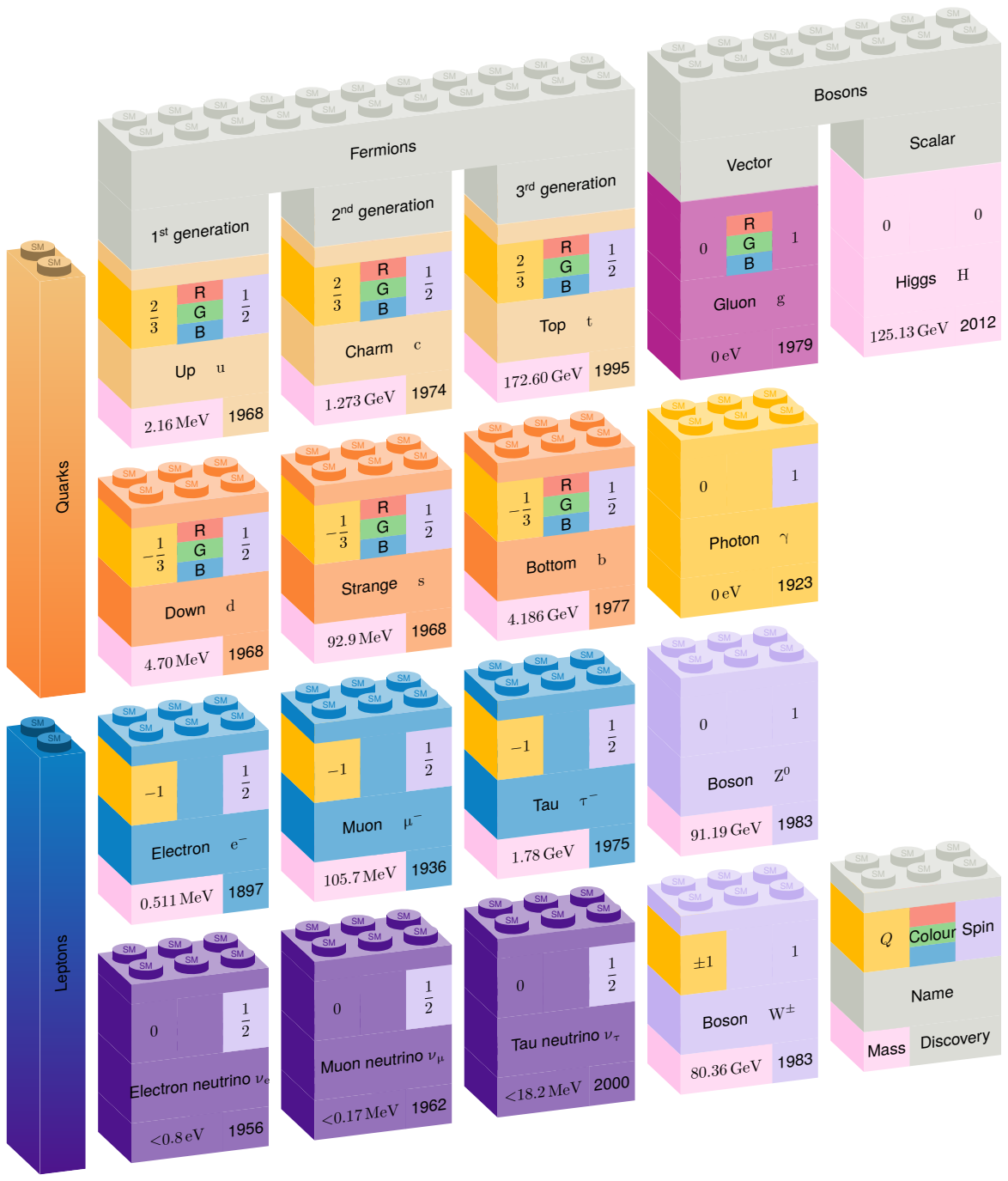

Fermions
1st generation
2nd generation
3rd generation
Quarks
Leptons
2/3 R G B 1/2
Up u
2.16 MeV 1968
Charm c
1.273 GeV 1974
Top t
172.60 GeV 1995
−1/3 R G B 1/2
Down d
4.70 MeV 1968
Strange s
92.9 MeV 1968
Bottom b
4.186 GeV 1977
−1 1/2
Electron e−
0.511 MeV 1897
Muon μ−
105.7 MeV 1936
Tau τ−
1.78 GeV 1975
0 1/2
Electron neutrino νe
<0.8 eV 1956
Muon neutrino νμ
<0.17 MeV 1962
Tau neutrino ντ
<18.2 MeV 2000
Bosons
Vector
Scalar
0 R G B 1
Gluon g
0 eV 1979
0 0
Higgs H
125.13 GeV 2012
0 1
Photon γ
0 eV 1923
0 1
Boson Z0
91.19 GeV 1983
±1 1
Boson W±
80.36 GeV 1983
Q Colour Spin
Name
Mass Discovery