

Summer School on Particle Physics

| | | Three Generations of Matter (Fermions) | | | | | |
|--------|---------|--|----------------|----------------|---------------------|-----------------------|---|
| | | I | | II | | III | |
| mass | | 2.4 MeV | 1.27 GeV | 171.2 GeV | 0 | 0 | 0 |
| charge | | $\frac{2}{3}$ | $\frac{2}{3}$ | $\frac{2}{3}$ | $\frac{2}{3}$ | $\frac{2}{3}$ | 0 |
| spin | | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | 1 |
| name | | u up | c charm | t top | γ photon | | |
| | Quarks | d down | s strange | b bottom | g gluon | | |
| | | $\frac{2}{3}$ | $-\frac{1}{3}$ | $-\frac{1}{3}$ | 0 | 0 | 0 |
| | | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | 1 |
| | | $\frac{2}{3}$ | $-\frac{1}{3}$ | $-\frac{1}{3}$ | 0 | 0 | 0 |
| | | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | 1 |
| | | $\frac{2}{3}$ | $-\frac{1}{3}$ | $-\frac{1}{3}$ | 0 | 0 | 0 |
| | | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | 1 |
| | Leptons | e electron | μ muon | τ tau | Z^0 weak force | W^\pm weak force | |
| | | 0 | 0 | 0 | 0 | 0 | 0 |
| | | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | 1 |
| | | 0 | 0 | 0 | 0 | 0 | 0 |
| | | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | 1 |
| | | 0 | 0 | 0 | 0 | 0 | 0 |
| | | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | $\frac{1}{2}$ | 1 |

Contribution ID: 46

Type: not specified

LHC

Tuesday, 23 July 2019 09:30 (1 hour)

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