

Summer School on Particle Physics

Three Generations of Matter (Fermions)					
	I		II		III
mass	2.4 meV		1.27 GeV		171.2 GeV
charge	$\frac{2}{3}$		$\frac{2}{3}$		0
spin	$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$
name	u up		c charm		t top
Quarks	d down		s strange		b bottom
	$-\frac{1}{3}$		$-\frac{1}{3}$		$-\frac{1}{3}$
	$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$
	4.8 MeV		128 MeV		4.2 GeV
Leptons	ν_e electron neutrino		ν_μ muon neutrino		ν_τ tau neutrino
	0		0		0
	$\frac{1}{2}$		$\frac{1}{2}$		$\frac{1}{2}$
	0.511 MeV		105.7 MeV		1.777 GeV
e electron			μ muon		τ tau
-1			-1		-1
$\frac{1}{2}$			$\frac{1}{2}$		$\frac{1}{2}$
0.511 MeV			1.777 GeV		1.777 GeV
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