

# Summer School on Particle Physics

Three Generations of Matter (Fermions)

	I	II	III	
mass	2.4 MeV	1.27 GeV	171.2 GeV	0
charge	$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2}{3}$	0
spin	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	1
name	u up	c charm	t top	$\gamma$ photon
Quarks	d down	s strange	b bottom	g gluon
	$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2}{3}$	0
	$-\frac{1}{3}$	$-\frac{1}{3}$	$-\frac{1}{3}$	1
	0	0	0	0
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	1
	electron neutrino	muon neutrino	tau neutrino	weak force
Leptons	e electron	$\mu$ muon	$\tau$ tau	Z weak force
	0.511 MeV	105.7 MeV	1.777 GeV	91.2 GeV
	-1	-1	-1	0
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	1
				1

Contribution ID: 9

Type: not specified

## Radiation-Matter Interaction I

**Presenter:** Prof. COBAL, Marina