

Standardmodell der Elementarteilchen

Drei Generationen der Materie (Fermionen)						Wechselwirkungen (Bosonen)					
		I	II	III							
Masse Ladung Spin	$\approx 2.16 \text{ MeV}/c^2$ $\frac{2}{3}$ $\frac{1}{2}$	u Up	$\approx 1.273 \text{ GeV}/c^2$ $\frac{2}{3}$ $\frac{1}{2}$	c Charm	$\approx 172.57 \text{ GeV}/c^2$ $\frac{2}{3}$ $\frac{1}{2}$	t Top	0 0 1	g Gluon	$\approx 125.2 \text{ GeV}/c^2$ 0 0 0	H Higgs	
	$\approx 4.7 \text{ MeV}/c^2$ $-\frac{1}{3}$ $\frac{1}{2}$	d Down	$\approx 93.5 \text{ MeV}/c^2$ $-\frac{1}{3}$ $\frac{1}{2}$	s Strange	$\approx 4.183 \text{ GeV}/c^2$ $-\frac{1}{3}$ $\frac{1}{2}$	b Bottom	0 0 1	γ Photon			
	$\approx 0.511 \text{ MeV}/c^2$ -1 $\frac{1}{2}$	e Elektron	$\approx 105.66 \text{ MeV}/c^2$ -1 $\frac{1}{2}$	μ Myon	$\approx 1.77693 \text{ GeV}/c^2$ -1 $\frac{1}{2}$	τ Tauon	0 1	Z Z-Boson			
	$< 0.8 \text{ eV}/c^2$ 0 $\frac{1}{2}$	ν_e Elektron-Neutrino	$< 0.17 \text{ MeV}/c^2$ 0 $\frac{1}{2}$	ν_μ Myon-Neutrino	$< 18.2 \text{ MeV}/c^2$ 0 $\frac{1}{2}$	ν_τ Tauon-Neutrino	$\approx 80.3692 \text{ GeV}/c^2$ ± 1 1	W W-Boson			
QUARKS								EICHBOSONEN VEKTORBOSONEN		SKALARBOSONEN	

QUARKS

LEPTONEN

SKALARBOSONEN

EICHBOSONEN
VEKTORBOSONEN