

The Standard Model for Matter (Leptons, Quarks) and Forces (Bosons)

The Standard Model

	THREE GENERATIONS OF MATTER (FERMIONS)			INTERACTIONS/FORCE CARRIERS (BOSONS)			
QUARKS	Mass: 2.2* Charge: 2/3 Spin: 1/2  Up	1,270 2/3 1/2  Charm	173,100 2/3 1/2  Top	GAUGE BOSONS (VECTOR BOSONS)	0 0 1  Gluon	SCALAR BOSONS	125,180 0 0  Higgs boson
	4.7 -1/3 1/2  Down	96 -1/3 1/2  Strange	4,180 -1/3 1/2  Bottom		0 0 1  Photon		
	LEPTONS	0.511 -1 1/2  Electron	105.66 -1 1/2  Muon		1,776.8 -1 1/2  Tau		91,188 0 1  Z boson
<0.00000012 0 1/2  Electron neutrino		<0.00000012 0 1/2  Muon neutrino	<0.00000012 0 1/2  Tau neutrino	80,379 +/-1 1  W boson			

* All masses are given in MeV/c²

Up quark, down quark,
electron, neutrino each
have three resonances

Photon boson has three
resonances plus etheric
graviton

Higgs boson has no
resonance

Space compartment holds
at most three matter
subquarks (Pauli
exclusion principle)

The Standard Model for Dark Matter (Leptons, Quarks) and Forces (Bosons)

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QUARKS	Mass: 2.2* Charge: 2/3 Spin: 1/2  Up	1,270 2/3 1/2  Charm	173,100 2/3 1/2  Top	GAUGE BOSONS (VECTOR BOSONS)		0 0 1  Gluon	SCALAR BOSONS 125,180 0 0  Higgs boson		
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Subquark with no charge, no electron, neutrino each have four resonances; use Wolfram network model for subquark aggregations

Photon boson has three resonances plus etheric graviton

Higgs boson has no resonance

Unknown how many dark matter subquarks space compartment holds

Foundational Equations



- **Fermions**

- Dirac equation/quaternions: relativistically correct
- Schroedinger equation in classical limit
- Subquarks, electron and neutrinos follow this

- **Bosons**

- Grassmann/Maxwell equations
- Gauge->Potential->Field->Current->Source
- Higgs plus Ether plus tachyons in compactified dimensions

- **Space Quantum Foam:** ruliad/network graph