

Geomerization of quantum numbers

Geometrization and topologization of quantum numbers means following.

Unbroken symmetries:

1. The isometries of M^4 code for four-momentum and angular momentum.
2. CP_2 isometries code for color quantum numbers labeling gluons and quarks. GD color differs from QCD color in some respects: color is not spinlike quantum number. Quarks and leptons have color excitations. Predicts scaled variants of hadron physics and lepto-hadron physics.
3. Quark and lepton number conservation reduce to chiral invariance in 8-D sense. Proton is stable against decays predicted by GUTs No superheavy GUT bosons.

Broken symmetries:

1. CP_2 holonomies code for electroweak quantum numbers.
2. Family replication phenomenon reduces to the topology of 2-dimensional partonic surfaces: generation-genus correspondence. Also bosons should have the analog of family replication phenomenon Also higher fermion families should exist but are very massive by argument relying on global conformal symmetries present for 3 lowest genera always.
3. Super-conformal symmetries for an infinite fractal hierarchy of broken symmetries defined by isomorphic sub-algebras for which conformal weights are multiples of given integer n . This relates closely to non-determinism of Kähler action, to quantum criticality associated with it, p-adicity, and hierarchy of Planck constants $h_{eff} = n \times h$ assigned to dark matter.