
How TGD differs from standard model?

TGD differs from standard model in many respects.

1. Classical fields are geometrized (being induced): all of them are expressible in terms of CP_2 coordinates and their gradients implying
 - (a) many-sheeted space-time and replacement of superposition of fields with set theoretic union for space-time sheets so that effects of fields superpose instead of fields. This in turn allows to understand GRT and gauge theory limit of TGD.
 - (b) sub-manifold gravity with enormous reduction of gravitational and also other field degrees of freedom having far reaching consequences in cosmology: inflation is replaced with quantum with almost unique critical cosmology and implying that the shape of space-time surface in H codes for physics.
 - (c) monopole magnetic fluxes important both in particle physics and cosmology
2. Electroweak symmetry breaking is coded by CP_2 geometry and unbroken symmetries correspond to isometries of $M^4 \times CP_2$ implying that TGD color differs from QCD color: TGD color is orbital momentum like quantum number in turn implying colored excitations of quarks (M_{89} hadron physics) and of leptons (leptohadron physics) and scaled versions of both: might be important in biology.
3. Pointlike particles are replaced with partonic 2-surfaces implying replacement of
 - (a) quantum fields with WCW spinor field.
 - (b) Higgs mechanism with p-adic thermodynamics.
 - (c) particles with string like objects in Compton scale.
4. Other differences are due to the various generalization of the conceptual framework of quantum physics are due to
 - (a) p-Adic physics.
 - (b) Zero energy ontology implying new view about information (NMP).
 - (c) Hierarchy of Planck constants giving rise to dark matter hierarchy Notion of finite measurement resolution (hyperfinite factors of type II_1).