

The construction of S-matrix has been a long-standing challenge of TGD and during years I have considered numerous proposals. Holography= holomorphy vision (H-H) allows solving the classical field equations for space-time surfaces exactly.

The Dirac equation in $H = M^4 \times CP_2$ can be solved exactly for M^4 . If M^4 has Kähler structure color confinement can be understood in terms of the H Dirac equation alone since the M^4 Dirac equation allows tachyonic masses and 8-D massless condition allows to construct light states, which must be color singlets. The interaction between space-time surfaces, which by H-H represent particles, is naturally a contact interaction occurring in their intersection consisting of string world sheets if the space-time surfaces have the same Hamilton-Jacobi structure.

The basic structure of QCD generalizes. All external particles are analogous to hadronic phase. Interactions occur in the color deconfined phase governed by the induced/modified Dirac equation. Color- and electroweak interactions can be seen as aspects of the same interaction. At the level of H , color partial waves as representations of the color group $SU(3)$ are analogous to orbital angular momentum eigenstates. Electroweak group $U(2)$ is a subgroup of the color group acting as gauge transformations and color interactions at this level can be identified as electroweak interactions. The value of color coupling strength is predicted correctly.

The basic objection against TGD has been that there are new indications for the new physics from LHC. Quite recently it was however reported there is evidence for anomalies related to the transition to a phase that has been interpreted as quark gluon plasma. Intriguingly, the new physics predicted by TGD indeed relates to this transition.