

# The Coupling Constants Series – Higgs Stealth Field

"Ideas. I never memorize lines." Bobby Fischer

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## Abstract:

By analyzing the primordial coupling constants series in spin representation, it is possible to analyze the Higgs field from a new angle. In particular, it is possible to predict that the Higgs is infinite in kind, and that it is in constant interaction with matter and Bosons. The Higgs field resembles a "stealth" sort of entity. The Higgs field is not apparent in net curvature representation.

## Introduction

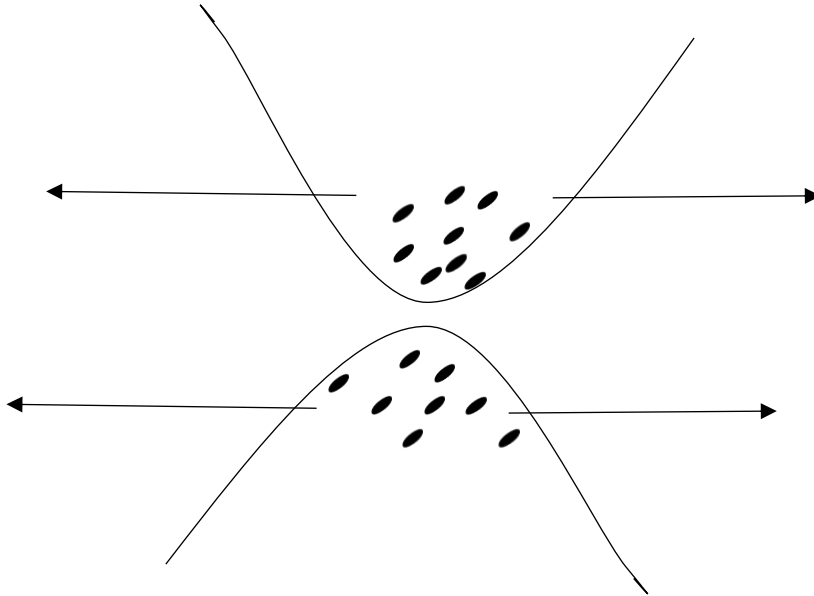
The 8T setting is a Lorentz manifold,  $s = (M, g)$ , with (3,1) signature. The manifold is the connected manifold, invoked stationary,  $s = s_0 \times \mathbb{R}$ . The manifold has areas of extremum curvatures that remain as they are overtime, this are yielding time invariant acceleration from them on the metric tensor M, given by two conditions below (1). The reason for the acceleration in the 8T is that the manifold is a part of an infinite packet of universes, which interact at areas of extremum curvatures, as g is the Ricci flow, and as a result flatten each other metric tensor causing it to accelerate in a time invariant rate, given by equations (1.2) and (1.1). By (1.2) those manifolds are topologically invariant. Flatness is an immediate result of this framework as given by the illustration below.

$$\frac{\partial \ell}{\partial s} \frac{\partial s}{\partial M} \frac{\partial M}{\partial g} \frac{\partial g}{\partial t} - \frac{\partial \ell}{\partial s'} \frac{\partial s'}{\partial M} \frac{\partial M}{\partial g'} \frac{\partial^2 g'}{\partial t^2} = 0 \quad (1)$$

$$\frac{\partial g}{\partial t} = 0 \cap \frac{\partial^2 g'}{\partial t^2} = 0$$

$$\frac{\partial \ell}{\partial s_1} - \sum_{n=2}^{\infty} \frac{\partial \ell}{\partial s_n} = 0 \quad (1.1)$$

$$\frac{\partial \ell}{\partial s_1} \frac{\partial s_1}{\partial M} \frac{\partial M}{\partial g} \frac{\partial g}{\partial t} - \sum_{n=2}^{\infty} \frac{\partial \ell}{\partial s_n} \frac{\partial s_n}{\partial M} \frac{\partial M}{\partial g} \frac{\partial g}{\partial t} = 0 \quad (1.2)$$



The manifold experience arbitrary amount of net curvature isomorphic to prime numbers or the number one. That construction yielded the primorial coupling constants series presented in equations (1.4) to (1.43) present the first and second representation. I.e. net curvature on the matric tensor and the prime critical line.

$$F_{V=0} = 8 + (1) \tag{1.4}$$

$$F_R\# = \left( 8 * \prod_{V=1}^{V=R} N_V + (3) \right) + N_V = 30: 128: 850: 9254.. \tag{1.41}$$

$$N_V = 2 \left( V + \frac{1}{2} \right); V \geq 0 \tag{1.42}$$

$$N_V \in \mathbb{P} \cup (+1); \mathbb{P} \rightarrow \text{Set of Primes}$$

$$N_V = P_{max} \in [0, \mathbb{R}] \cup (+1); P_{max} \in \mathbb{P}$$

$$8 + (1)$$

$$[(8 * 3) + (3)] + 3 \rightarrow \left[ 2N_1 + \frac{1}{2} \right] + \frac{1}{2}$$

$$[(24 * 5) + (3)] + 5 \rightarrow \left[ 2N_2 + \frac{1}{2} \right] + \frac{1}{2}$$

$$[(120 * 7) + (3)] + 7 \rightarrow \left[ 2N_3 + \frac{1}{2} \right] + \frac{1}{2}$$

$$8 + (1): (24 + (3)) + 3: (120 + (3)) + 5: (840 + (3)) + 7 ... \tag{1.43}$$

For example, the Electromagnetic coupling term, we have proven the invariant three to be an electron by putting it in the fine structure constant formula:

$$[(24 * 5) + (3)] + 5 \rightarrow [(24 * 5) + (e)] + \gamma \quad (1.44)$$

We have described the arbitrary variations of the manifold by the term on the main equation:

$$\frac{\partial \mathcal{L}}{\partial s} \frac{\partial s}{\partial M} \frac{\partial M}{\partial g} \frac{\partial g}{\partial t} \delta g - \frac{\partial \mathcal{L}}{\partial s'} \frac{\partial s'}{\partial M} \frac{\partial M}{\partial g'} \frac{\partial^2 g'}{\partial t^2} \delta g' = 0 \quad (1.46)$$

We partitioned and discretized the arbitrary variation term and derived the existence of Fermion. In particular, we have shown that it must have an even amount of elements, which differ in sign and create nine threefold combination, and no more than two distinct elements.

$$\delta g_1 + \delta g_2 \dots = \sum_{i=1}^N \delta g_i \quad (1.47)$$

$$\sum_{i=1}^N \delta g_i = 0 \quad (1.48)$$

In addition, with bosons, described by the term (1.49) as they were proven discrete amount of prime curvature on the matric tensor:

$$\sum_{i=1}^M \delta g_i > 0 \quad (1.49)$$

Up until now, reader is probability familiar with every equation presented, as those are 8T fundamentals. **From here** on out, we have a completely **new paper**. The analysis of the Higgs field will be done via the spin representation. In the 8T thesis, page sixteen, we presented the following classification:

Spin 0:  $2N_0$  variations

Spin  $\frac{1}{2}$ :  $2N_0 + 3$  variations

Spin 1:  $2N_0 + 3 + N_V$  variations

Spin  $N = 2N_0 + 3 + N_{V1} + N_{V2} \dots$  variations

In other words, the Higgs field is represented by the first term and is affecting the series from the weak interaction and above, as it is responsible to the additional term appearing in the coupling term of the weak and above, i.e. the invariant three. The two key points, which are at the heart of this paper, are the following. According to spin representation, there is more than one Higgs particle. That is because, if one idea is correct, there is no restriction imposed on the term of the spin zero. That is in rigor, spin zero can be parametrized;

$$2N_{( )} \rightarrow 2N_{\mu}$$

$$\mu \in \mathbb{R}$$

$$2N_{\mu} \in \mathbb{R}$$

Because of the parametrization of the first term in spin representation, we can create infinite terms that are distinct, that is:

$$2N_{\mu} \neq 2N_{\mu+1} \neq 2N_{\mu+2} \dots$$

Each corresponds to a unique Higgs operator if one intuition is correct. It is again a bold risk as spin representation and net variation representation are different. The idea was to take a certain feature of the net variation representation, which is the ever-increasing variation terms, and use it in spin representation to predict that there are infinite Higgs particles. The second main point is the following. Since the  $2N_{\mu}$  coupling terms are always present in the coupling series, the effect of Higgs, or the interaction of the Higgs with the fermions and Bosons is constant. Hence, its name in the paper title, it resembles a stealth field, which is unfelt and yet is always there. That is only evident in spin representation. In addition, since the Higgs field is part of the primordial coupling series, i.e. a scalar function, that do not include a time parameter, we can predict that the Higgs is time invariant. If the higgs field is associated with the  $2N_{\mu}$  term of the weak interaction as an example, it should be massless. If it is not the Higgs field itself is going via a process of a symmetry break. Either that or the idea of the mass symmetry break of the  $8 - 1$  variations is incorrect. To summarize four predictions were made:

- (1) Higgs are infinite in kind
- (2) Higgs are in constant interaction with Fermions and Bosons, it is a stealth field.
- (3) Higgs particles are time invariant
- (4) Higgs should manifested as Massless particle. If it is not, it is going via a symmetry break.

## References

- [1] O. Manor. "8 Theory – The Theory of Everything" In: (2021)

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