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Inner Curvatures– Where 8T and GR Differ

"That gleam in your eye tells me you have an idea." René Goscinny.

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Abstract:

By analyzing the main equations of the new framework of variational manifolds, 8T, and in particular the primorial function of coupling constants, which regard Bosons to be net curvature of discrete prime amount, it is possible to elevate Einstein idea. In particular, 8T regard the Space-time bending to inner curvature inside a Fermion cluster and not to the Fermion cluster itself, as suggested by Einstein theory. It is a small distinction, but at the same time, a major one as it allows a glimpse to a complete accurate picture of the space-time bending not included in General relativity.

Introduction

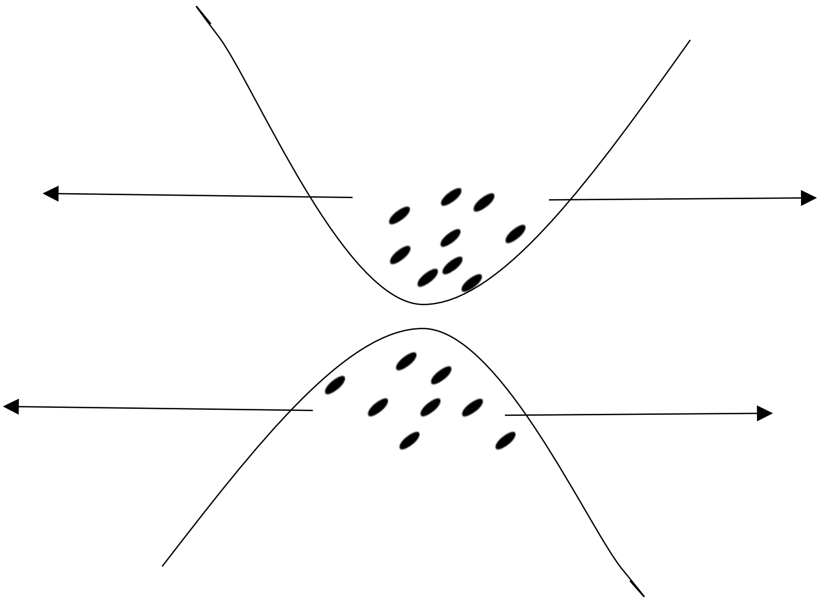
The 8T setting is a Lorentz manifold, $\mathrm{s} = (\mathrm{M}, \mathrm{g})$, with $(3,1)$ signature. The manifold is the connected manifold, invoked stationary, $s = s_0 \times \mathbb{R}$.. The manifold has areas of extremum curvatures that remain as they are overtime, this are yielding time invariant acceleration from them on the matric 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 matric 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.

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

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

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

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



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.

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

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

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

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

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

$$8 + (1)$$

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

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

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

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

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:

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

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

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

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.

$$\delta \mathrm{g}_1 + \delta \mathrm{g}_2 \ldots = \sum_{i=1}^{N} \delta g_i \qquad (1.47)$$

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

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

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

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.** Einstein beautiful theory of general relativity is correlating matric tensor to the Stress Energy tensor by the famous equation;

$$G_{\mu\nu} = 8\pi T_{\mu\nu}$$

The theory implies a morphism between matter, which causes the bending of space-time, and the bending of space-time dictates the trajectory of matter. This idea is correct but only up to a certain extent. In the new 8T, the fermion cluster itself is not allowed having curvature given by (1.48) but rather it is **the inner curvature within the fermion clusters** that causes the bending of space-time. Einstein theory is correct in the major sense of curvature and space-time bending, but the key point and were the 8T and GR differ is the source and the nature of that bending. GR correlates to (1.48) while the 8T correlates to (1.49), prime amounts of distict net curvature, supported by the primorial coupling series. The inner curvatures inside the fermion cluster are deflecting linearly polarized curvature rays, not the fermion cluster itself, matter itself is not the cause for bending, what is propagating within matter is the cause of bending. Those Bosons are violations of stationarity causing matter to cluster, Another major and significant difference which is manifested in their isomorphism to prime numbers. is that in Quantum scale, we currently regard Gravitation to be a composite interaction that have infinite variations. This prediction was constructed on the primorial. While Einstein and GR regard the Gravitational constant as a constant, in the 8T it is a subject to a constant variation. That is because the structure of Gravity is preserved, i.e. invariant to different composition of net variation elements, given by the equations (2.2) and (2.3) below.

$$\left[\left(2N_{gravity}\right)+(3)\right]+N_{V1}+N_{V2}+N_{V3}=\left[2N_{gravity}+\frac{1}{2}\right]+\frac{1}{2}+\frac{1}{2}+\frac{1}{2} \qquad (2.2)$$

$$\left[2N_{gravity}+2\right]\rightarrow\left[2N_{gravity}\right] \qquad (2.3)$$

$$\left[\left(2N_{()}\right)+(3)\right]+N_{VK1}+N_{VK2}+N_{VK3}$$

$$\left[N_{VK1},N_{VK2},N_{VK3}\right] \in \mathbb{P}$$

$$K1 \ldots KN \in \mathbb{R}$$

Another possible composition, among infinity of others:

$$\left[\left(2N_{()}\right)+(3)\right]+N_{VK1}+N_{VK2}+N_{VK4}$$

$$N_{VK3} \not\equiv N_{VK4}$$

The structure of the gravity is invariant to the change of the element. Since the total spin is invariant, i.e. two, there is not a change in the nature of gravity; the structure is the same while the composite element could be different. The spin two indicate short range, which agrees with the idea of inner curvature, and with the lack of detecting the graviton. The spin two vanish to an even number in net curvature representation. As equation (2.3) indicate, that is how we derived the Graviton is massless.

$$\left[\left(2N_{()}\right)+(3)\right]+N_{VK1}+N_{VK2}+N_{VK3}\rightarrow 2N_{()}+2$$

$$\left[\left(2N_{()}\right)+(3)\right]+N_{VK1}+N_{VK2}+N_{VK4}\rightarrow 2N_{()}+2$$

Other major differences between the GR (1918) and the 8T (2021) is that GR does not include flatness while 8T flatness is and immediate result, given by (1.48) and the main equation (1). Einstein had to insert the cosmological constant that dictates that negative acceleration. Suffice to say Einstein theory does not include any of the other interactions, while 8T predicts all under the primorial series. Therefore, despite 8T and GR both are assembled by manifolds and curvature as the main pillars, they also differ in incredible manners in explaining the reason for that curvature. A major difference in the spectra of phenomena both theories can provide an explanation to, 8T includes Quantum interactions alongside Cosmological formations while GR as impressive as it is does not provide an answer to how those matter formations were created in the first place. The only disadvantage is 8T is not computational in a sense, other than the primorial and the mass series it seems at the verge of impossible to do calculation with the main equation of the 8T, similar to the integrations presented in QFT all over space-time. On the other hand, similar to Einstein approach, ideas are more important than calculations and a search for beauty is more important than a search for numbers. So the predictions made about light rays bending, or linearly polarized curvature rays is absolute correct, it's **the cause** to that bending which need to be revised, the inner curvatures, short ranged, and isomorphic to the higher coupling terms in the primorial as many elements are varying, (also count for the weakness of gravity) which cause the bending of light, not the matter per-se. That is the reasoning the 8T suggest to the proven correct and beautiful result and prediction made by the one and only - Einstein.

As was mentioned above page alongside in previous papers, 8T does not associate gravity as presented in equations (2.2) and (2.3) to long range due to vanishing spin two in net variation representation. That means that the gravitational interactions among stars is mediated by different coupling. The 8T suggested that the gravitation in long ranged is meditated by light, as photons are net curvature diverging long ranged due to spin one trait that do not vanish.

References

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

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