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Absolute Unified Mathematics of Quantum Gravitation

This paper delves into the structured framework of Absolute Unified Mathematics, where the skew-symmetric (vorticity) and symmetric (strain-deformation) types' quantum fields are found embedded in Einstein curvature tensor. It turns out that these fields encapsulate Dirac matrices of types: γ_α and $\partial_\mu \gamma_\alpha$, concealed as modules within Christoffel symbols of second kind. These matrices were discovered by resolving non-linearity that arises from the $\partial_\mu g_{\alpha\beta}$. Additionally, these field equations yields one of the noteworthy expressions, namely $\partial_\alpha \Gamma^\alpha_{00} = \frac{1}{2}[(\chi)\Gamma_{00,m} + g^{\alpha m}(\Omega)]$, where the values of $\chi = (\partial_\alpha \gamma^\alpha)\gamma^m + \gamma^m(\partial_\alpha \gamma^\alpha) + (\partial_\alpha \gamma^m)\gamma^\alpha + \gamma^\alpha(\partial_\alpha \gamma^m)$, and $\Omega = (\partial_\alpha \gamma_0)(\partial_0 \gamma_m) - (\partial_\alpha \gamma_0)(\partial_m \gamma_0) + (\partial_0 \gamma_m)(\partial_\alpha \gamma_0) - (\partial_m \gamma_0)(\partial_\alpha \gamma_0) + (\partial_\alpha \gamma_m)(\partial_0 \gamma_0) + (\partial_0 \gamma_0)(\partial_\alpha \gamma_m) + \gamma_0(\partial_\alpha \partial_0 \gamma_m) + (\partial_\alpha \partial_0 \gamma_m)\gamma_0 - \gamma_0(\partial_\alpha \partial_m \gamma_0) - (\partial_\alpha \partial_m \gamma_0)\gamma_0 + \gamma_m(\partial_\alpha \partial_0 \gamma_0) + (\partial_\alpha \partial_0 \gamma_0)\gamma_m$, respectively. This outcome was an integral part of both Ricci scalar as well as its curvature tensor components, and it was derived by taking $R = g^{00}R_{00}$ into account. Sequentially, the matrices (γ^5 , γ_5) from Clifford algebra were also introduced to disassemble the curvature components into states of helicity. This contribute as a first theoretical affirmation of Chirality revealed out of general relativity, as depicted here within. On the other hand, all the three geometrical shapes (spherical, hyperbolic and flat) were unified using a simplified formulation: $[(R^+_{\mu\nu} > 0) - (R^-_{\mu\nu} < 0)] = (R_{\mu\nu} = 0)$, offering a solution to the flatness problem of an accelerating expanding universe. This indicate that there is an existing localised hyperbolic geometry (a diverge geodesic featuring volume dilation and time contraction) which nullify the spherical geometry (a converge geodesic featuring volume contraction and time dilation), leading to a flat geometrical shape universe. Further verification of this assertion was provided through the subsequent calculation, i.e., the difference of (sum of all the angles of triangle on spherical curvature, $\alpha_1 + \beta_1 + \gamma_1 = 270^\circ$) to (sum of all the angles of triangle on hyperbolic curvature, $\alpha_2 + \beta_2 + \gamma_2 = 90^\circ$) equals to 180°. Thus, this paper concludes the complete theoretical form of Quantum Gravitation.

Author: Mr SINHA, Aayush

Presenter: Mr SINHA, Aayush

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