

The Coupling Constant Equation And The Underlining Connection of Spin to Wave-Particle Duality

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Abstract:

By analyzing the framework of the 8-theory and in particular the coupling constant Equation and the variation of $N(V)$ It becomes clear that certain change occur in the nature of the field behave as a ripple propagation. This is due to a variance in the ring. The ring of primes waves across the matrix. The ring of non-primes, i.e. evens behave as local excitements, which are point like, and vanish into fermions. We can associate those different features to the wave- particle duality feature of nature.

Introduction

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

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

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

$$N(V)_V \in \mathbb{P} \bigoplus (+1); \mathbb{P} \rightarrow \text{Set of Primes}$$

$$N(V)_V = P_{max} \text{ in Range } [0, \mathbb{R}] \bigoplus (+1)$$

$$8 + (1): (24 + (3)) + 3: (120 + (3)) + 5: (840 + (3)) + 7 ... \tag{2}$$

$$(1): (30): (128): (850): (9254) ... \tag{3}$$

We can vary the $N(V)$ outside of the parenthesis so by doing so, reaching duality among the three first forces at 26 variations was attained.

$$[8 + (1)] + 3 - (\mathbf{1v}): \quad [(8 * 3) + (3)] + 3 : \quad [(24 * 5) + (3)] + \mathbf{3} \quad (4)$$

By analyzing the third element in the series, the propagation of a photon from a fermion so called the electron. Certain insight from the new framework is becoming vividly clear. In the context of wave particle duality.

$$[(24 * 5) + (3)] + 5 \quad (5)$$

Since it is a prime net variation outside the parenthesis, it cannot vanish into matter. As fermions vanish in even amounts. The ripple field of boson across the matric is mathematically described:

$$\nabla^2 = \frac{\partial^2 M(x)}{\partial^2 g} + \frac{\partial^2 M(y)}{\partial^2 g} + \frac{\partial^2 M(z)}{\partial^2 g} \quad (6)$$

$$M(x, y, z) \in S \quad (7)$$

$$S = (M, g) \quad (8)$$

Suppose, in an experiment we decide to measure the photon momenta of position. It is done by scattering an additional photon onto the photon, which already propagated from the electron. For simplicity sake, we suppose it is one additional element that is only one photon:

$$[(24 * 5) + (3)] + 5 \rightarrow [(24 * 5) + (3)] + 5 + 5 \quad (9)$$

$$[(24 * 5) + (3)] + 5 \rightarrow \left[2N2 + \frac{1}{2}\right] + \frac{1}{2} \quad (10)$$

$$[(24 * 5) + (3)] + 5 + 5 \rightarrow \left[2N2 + \frac{1}{2}\right] + \frac{1}{2} + \frac{1}{2} \quad (11)$$

Equations (10)-(11) are the second variation of the coupling constant equation, which is the prime critical line. By adding the additional net variation, we reach a spin that is No longer associated with boson propagation, $\frac{3}{2}$.

$$(3) + N(V) \rightarrow (3) + N(V) + N(V) \quad (12)$$

$$2n + 1 \rightarrow 2n + \frac{3}{2} \quad (13)$$

Before our measurement the bosons had spin one. Described by equation (6) and by Measurement with additional photon, a variance of spin has occurred, so now our Boson behave like a fermion, it has an additional half unit of spin. Overall in the 8-theory by analyzing the coupling constant equation in the second representation, it is possible to extrapolate the reason for the phenomenon of wave particle duality.

References

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