

I introduce myself: I'm 49 years old.

I studied a physics degree between 1992 and 1996 at UAB (Universitat Autònoma de Barcelona)

Where later I began doctoral studies with Gaspar Orriols and Francesc Pi... in the optics group at the UAB.

We made some articles were on the dynamic system BOITAL(1)(2)(3)

For numerous reasons I was not able to finish the doctorate.

In this article I will present an equation for the half-life of the neutron. Which will lead to deducing an internal structure of the neutron. Then I present an equation based on information being proportional to mass, which implies that neutrinos will have mass, even if it is very small. Internal structure of the neutron by its half-life:

The formula for the half-life of the neutron that I have found is:

$$T_{\text{planck}} \cdot 9!^8 \cdot 9 \cdot 6 = T(\text{half life of neutron}) = 879.4 \text{ s} \pm 0.6 \text{ s} = T_n = \text{half life of neutron} \quad (\text{equation 1})(4)$$

where $T_{\text{planck}} = \text{Planck time} = 5.39124 \times 10^{-44} \text{ s}$

I found $9!^8$ thinking that the neutron was a sudoku.

Then I related it to the Planck Time and then I found that I was missing a rubick cube $54 = 9 \cdot 6$ by deduction.. and the rubick Cube in 2-D is a flower of life. So what formula 1 says is that the neutron is a flower of life with 56 triangles where in each triangle there is a sudoku... and each Planck time changes a triangle and if it is one that coincides with the spin triangle and all the subgrids of that sudoku are equal ($9!^8$) it disintegrates. In each triangle of flower of life there are a sudoku. The 3 diferent direccions of the triangles are the color.

See <grafic of neutron>

Given that:

$T_{\text{planck}} \cdot (\text{inverse probability})^{-1} = T_{\text{planck}} \cdot \text{possibilities} = T_{\text{planck}} \cdot 9!^8 \cdot 9 \cdot 6 = T_n = 875.36$ (equation 2) Equation 1 has a 0.5% error...this is because the experimental error of 879.4 seconds in the formula was not well calculated. Other authors find more error in the calculation of the neutron half-life.

We also have that most of the nuclei must be variants from the structure of flower of life because we must use $9!^9$ $9!^{10}$ or $9!^{11}$...but there is one in particular which is Barium-137,

This nucleus decays quickly and the half-life of Barium-137 = 2.55 minutes = 153 s (5)

This must be because barium-137 has $81 = 9 \cdot 9$ neutrons (same as sudoku).

This structure is due to the fact that the neutrons overlap, and give a half-life lower than that of a single neutron.

So, we have:

$$T_{\text{Planck}} \cdot 9!^8 \cdot \text{factor} = 153s \quad \text{then} \quad \text{factor} = 153 / (9!^8 \cdot T_{\text{Planck}}) = 9.43 \sim 10$$

Mass is information: Let's now think in terms of information. Matter is information.

So, we have: $\text{Matter} = \text{Information} \cdot (\text{information constant}) = \text{Information} \cdot I$ (equation 3)

Where we can calculate the information constant considering a neutron:

Where

$$\begin{aligned} \text{Neutron Information} &= 9!^9 \cdot 54 \cdot I = M_n / (\text{Information neutron}) = 1.6726 \cdot 10^{-27} / (9!^9 \cdot 54) \text{ kg} = \\ &= 2.838775424 \cdot 10^{-79} \text{ kg} \quad (\text{equation 4}) \end{aligned}$$

$$M_n / M_e = 1836 = 54 \cdot 34 \quad (\text{equation 5})$$

Equation 5 is a physical curiosity. So:

$$(\text{Information electron}) = (M_e / M_n) \cdot I = (9!^9 \cdot 54) / (54 \cdot 34) = 9!^9 / 34 = 3.209137895 \cdot 10^{48} \quad (\text{equation 6})$$

Here it should be deduced which figure is the electron being a

$$(\text{sudoku possibilities}) / 34 = 9!^9 / (2 \cdot 9 + 2 \cdot 8)$$

$$\begin{aligned} (\text{Information proton}) &= (M_p / M_n) \cdot I = ((M_n - M_e) / M_n) \cdot I = \\ &= (1 - 1 / (54 \cdot 34)) \cdot I = 54 \cdot 34 - 1 \cdot I / (54 \cdot 34) = (54 \cdot 34 - 1) \cdot (9!^9 \cdot 54) / (54 \cdot 34) = 5.888768037 \cdot 10^{51} \cdot I \end{aligned}$$

If Information = 1, the one with the least information is the smallest mass that exists and is:

$$\text{Mass} = 1 \cdot I = 2.838775424 \cdot 10^{-79} \text{ kg}$$

The mass of neutrinos or any mass (gravitons too) must be multiples of I. (1)

(1) Experimental Observation of Amplitude Death Effect in Two Coupled Nonlinear Oscillators R. Herrero, M. Figueras, J. Rius, F. Pi, and G. Orriols. Ph. Rev. Letters, Volume 84, Number 23, 5 de junio 2000 Hoja instability behavior of N

(2) dimensional Dynamical systems with one-directional nonlinear vector field J. Rius, M. Figueras, R. Herrero, F. Pi, J. Farjas, and G. Orriols. Physical Review E Volume 62, Number 1, Julio 2000 -

(3) About the oscillatory Possibilities of the Dynamical systems R. Herrero, F. Pi, J. Rius, G. Orriols Physica D 241 (2012) 1358-1391

(4) <https://es.wikipedia.org/wiki/Neutrón>

(5) <https://es.wikipedia.org/wiki/Cesio-137>

Grafic of neutron

