

Table of scales subquantum

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Abstract

We show a table that specifies all subquantum scales . Internal consistency deus subject to constraints: a) the objectivity of the measures b) the logical explanation of phenomena. We find the explanation of the birth of gravitation. The table shows that the number of scale {space, mass, time} is equal to 5. This is the key to mitosis fractal {5+1} homotheties, found everywhere.

Keywords

Bose Einstein condensate (BEC); network tachyons; subquantum; mitosis BEC ; Fibonacci, fractal ; Universe scale ; tachyon ; electron.

(5+1) homotheties

levels	N	1D	2D	3D	symb.	value	levels comment	formulas comment	formulas	
tachyon	0	1	-	-	λ_0	10^{-24}	network 3D formed by ξ^3 spherical layers each having ξ^6 tachyons.	ξ magnitude by electron magnetic moment anomaly with 12 significant digits. Justification physical [1]. $\alpha_e = 1.001159652180 \times 10^{11}$	$\frac{\alpha^{12}[2 - \ln \xi^8 / 207]}{1841 \xi^2} - \frac{\sqrt{2} \pi + \alpha}{\xi} - \alpha_e = 0$ $\frac{\xi^4}{\alpha} = \frac{e^2}{4 \pi \epsilon_0 G m_e^2} = \xi^4 \frac{r_0}{\lambda_e}$ $m_W = \frac{2}{5} \sqrt{\xi} m_e \frac{P \xi^2}{\alpha^{12}}$ $r_P = \frac{4 \lambda_e}{1840} + \frac{r_4}{8}$ $k = \frac{4}{3} \pi \frac{\xi^3}{\alpha^{16}}$ $P = \frac{k}{1 + \frac{6/5}{\alpha^3}} \frac{\alpha^{12}}{\xi^2} = \frac{4}{3} \pi \frac{\xi}{\alpha^4} \left(1 + \frac{6/5}{\alpha^3} \right)$	
	1	α	α	α	r_1	10^{-22}		ratio(2/1) 3D= 4/3 π beginning accretion proton. $\alpha = 137.03599968$		gravitational gradient BEC-0 $\xi = 1.545820576567 \times 10^{11}$ $G = 6,67240 \times 10^{-11}$ [2]
	2	α^2	α^2	α^4	r_2	10^{-20}				
	3	α^3	α^4	α^7	r_3	10^{-19}				
	4	α^4	α^6	α^{10}	r_4	10^{-17} 10^{-16}		proton radius		radius = longueur Compton proportional to electron if bosons in 4 groups. according measure [3]
electron	5	α^5	α^8	α^{13}	r_0	10^{-15}	classical radius. Longueur Compton =	link coefficient: $\alpha = f(\xi)$. The annihilation step forms the fractal mitosis. Is it proportional to {mass first layer} / {total mass}.		
	6	α^6	α^{10}	α^{16}	λ_e	10^{-13}				
proton	7	α^7	α^{12}	-	a_0	10^{-11}	interval tachyon in 3D network	proton mass measured in unit electron [4]. Coefficient harmonicity in base 5.		
Rydberg	8	α^8	-	-	$R \infty^{-1}$	10^{-7}	$= 4 \pi \lambda_e \alpha^2$			

This table is the complement of the publication [24]. The entire model is grouped in the following papers: [5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24].

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