

Note''

2021-08-05 (c) John wso1, all rights reserved.

Calculating the geometry of the electron where the Bohr radius is like a slinky with the electron charge radius being like the spring in retractable pens, except this tiny diameter spring is several meters long so that we can string the slinky's circumference through the tiny but long pen spring. This is what I call a wavicle double-twist vortex.

15 calc 'alpha (e%q_P)^2 lam_e*c (pi*r_e^2)%omg_e r_e lam_e a_0'

Quantity	Value	relUnc	L_T_M_C_K	sum	SIunits
alpha	7.29735256930000e_3	1.3e_11	0 0 0 0 0	0	
(e%q_P)^2	7.29735256530521e_3	1.1e_11	0 0 0 0 0	0	
lam_e*c	7.27389509527566e_4	1.6e_11	2 -1 0 0 0	1	m2/s
(pi*r_e^2)%omg_e	3.21335875163959e_50	3.1e_11	2 1 0 0 0	3	m2 s
r_e	2.81794032158005e_15	1.4e_11	1 0 0 0 0	1	m
lam_e	2.42631023602190e_12	1.6e_11	1 0 0 0 0	1	m
a_0	5.29177210613775e_11	2.5e_11	1 0 0 0 0	1	m

calc 'lam_e*c lam_e*r_e a_0%lam_e'

Quantity	Value	relUnc	L_T_M_C_K	sum	SIunits
lam_e*r_e	861.022576468702	2.1e_11	0 0 0 0 0	0	
a_0%lam_e	21.8099566476461	3e_11	0 0 0 0 0	0	

lam_e spans the 2pi circumference its charge radius divides the orbit 861 times during the electron-wave to manifest m_P*t_P worth of mass-137.036%2p1

calc '2p1*a_0 lam_e'

2p1*a_0	3.32491847462275e_10	2.5e_11	1 0 0 0 0	1	m
lam_e	2.4263102360219e_12	1.6e_11	1 0 0 0 0	1	m

calc 'a_0*2p1%lam_e r_e*2p1%lam_e lam_e*2p1%lam_e'

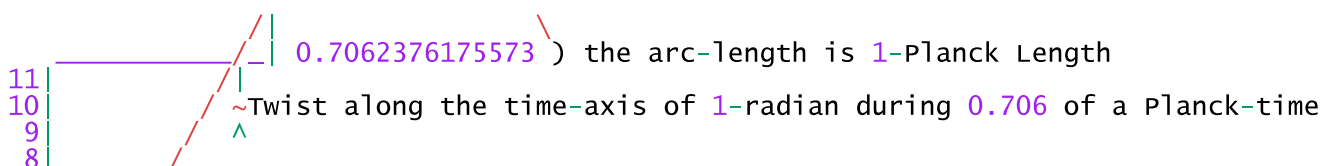
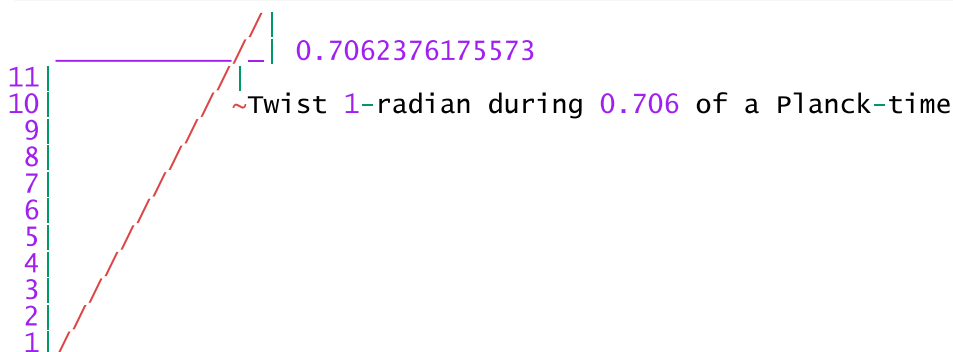
a_0*2p1%lam_e	137.035999158713	3e_11	0 0 0 0 0	0	
r_e*2p1%lam_e	0.00729735256530521	2.1e_11	0 0 0 0 0	0	
lam_e*2p1%lam_e	6.28318530717959	2.2e_11	0 0 0 0 0	0	

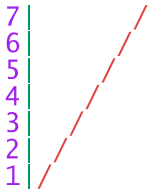
calc 'lam_e*c lam_e*r_e a_0%lam_e'

lam_e*c	0.000727389509527566	1.6e_11	2 -1 0 0 0	1	m2/s
lam_e*r_e	861.022576468702	2.1e_11	0 0 0 0 0	0	
a_0%lam_e	21.8099566476461	3e_11	0 0 0 0 0	0	

calc 'lam_e*c alpha 1%alpha 1%lam_e*c'

lam_e*c	0.000727389509527566	1.6e_11	2 -1 0 0 0	1	m2/s
alpha	0.0072973525693	1.3e_11	0 0 0 0 0	0	
1%alpha	137.035999083696	1.3e_11	0 0 0 0 0	0	
1%lam_e*c	1374.77924399747	1.6e_11	-2 1 0 0 0	-1	s/m2





whats ' λ_{e^0} '

λ_{e^0}	m	LTMCK: 1 0 0 0 0	sum=1	Compton wavelength of electron
Value	digit ₁₅	relUnc	Formula	
2.42631023602190e ₋₁₂		1.9e ₋₁₁	h/m_e*c	

calc ' $\lambda_{e^0}*c \lambda_{e^0}r_e$ '

$\lambda_{e^0}*c$	0.000727389509527566	1.6e ₋₁₁	2 -1 0 0 0	1	m ² /s
$\lambda_{e^0}r_e$	861.022576468702	2.1e ₋₁₁	0 0 0 0 0	0	

calc ' $m_P*t_P hBar*c^2 \text{ omg}_e \text{ omg}_e*hBar*c^2 m_e$ '

m_P*t_P	1.17336939201656e ₋₅₁	9e ₋₁₂	0 1 1 0 0	2	kg s
$hBar*c^2$	1.17336939201656e ₋₅₁	6e ₋₁₂	0 1 1 0 0	2	kg s
omg_e	7.76344071480829e ₂₀	1.5e ₋₁₁	0 -1 0 0 0	-1	Hz
$\text{omg}_e*hBar*c^2$	9.10938371149123e ₋₃₁	1.6e ₋₁₁	0 0 1 0 0	1	kg
m_e	9.10938371149123e ₋₃₁	1.7e ₋₁₁	0 0 1 0 0	1	kg

Quantum mass-time increm
Really radians/second
 $m_e = \text{omg}_e*[qkg]$

whats ' $f_e \text{ omg}_e$ '

f_e	Hz	LTMCK: 0 -1 0 0 0	sum=-1	electron frequency
Values	digit ₁₅	relUnc	Formulae	
1.23558996516262e ₂₀		2.3e ₋₁₁	$((\text{Roo}(e^4)*\mu_0^2)*(2*h*c)^3)*c^2 \% h$	
1.23558996516262e ₂₀		1.9e ₋₁₁	$(m_e*c^2)\%h$	
omg_e	Hz	LTMCK: 0 -1 0 0 0	sum=-1	freq of electron; Compton angular freq
Value	digit ₁₅	relUnc	Formula	
7.76344071480829e ₂₀		1.8e ₋₁₁	$(m_e*c^2)\%hBar$	

calc ' $\lambda_P*(m_P*m_e)\%alpha a_0 \alpha*a_0 r_e\%alpha$ '

$\lambda_P*(m_P*m_e)\%alpha$	5.29177210613775e ₋₁₁	2.3e ₋₁₁	1 0 0 0 0	1	m
a_0	5.29177210613775e ₋₁₁	2.5e ₋₁₁	1 0 0 0 0	1	m
$\alpha*a_0$	3.86159267537349e ₋₁₃	2.8e ₋₁₁	1 0 0 0 0	1	m
$r_e\%alpha$	3.86159267537349e ₋₁₃	1.9e ₋₁₁	1 0 0 0 0	1	m

Bohr radius
<== midway between r

calc ' $\lambda_{e^0} c\%f_e c\%omg_e a_0*\alpha r_e\%alpha$ '

λ_{e^0}	2.4263102360219e ₋₁₂	1.6e ₋₁₁	1 0 0 0 0	1	m
$c\%f_e$	2.4263102360219e ₋₁₂	1.6e ₋₁₁	1 0 0 0 0	1	m
$c\%omg_e$	3.86159267537349e ₋₁₃	1.5e ₋₁₁	1 0 0 0 0	1	m
$a_0*\alpha$	3.86159267748744e ₋₁₃	2.8e ₋₁₁	1 0 0 0 0	1	m
$r_e\%alpha$	3.86159267325954e ₋₁₃	1.9e ₋₁₁	1 0 0 0 0	1	m

Compton wavelength of electron
to the speed of Light divided
The Speed of Light/electron's
= the midway point between the
= and the Borh radius

15 calc ' $\lambda_{e^0}*c \alpha 1\%alpha 1\%\lambda_{e^0}*c$ '

$\lambda_{e^0}*c$	0.000727389509527566	1.6e ₋₁₁	2 -1 0 0 0	1	m ² /s
α	0.0072973525693	1.3e ₋₁₁	0 0 0 0 0	0	
$1\%alpha$	137.035999083696	1.3e ₋₁₁	0 0 0 0 0	0	
$1\%\lambda_{e^0}*c$	1374.77924399747	1.6e ₋₁₁	-2 1 0 0 0	-1	s/m ²

24 60 60 #: ans
0 days 22hrs 54.77 minutes