214(2) : Multiple Internal Self Inconsistencies

From note 214(1) it is found that the EGR claim to produce a precessing ellipse results in :

$$\left(\frac{x}{\alpha}\right)^2\left(\epsilon^2-1\right)+\frac{2x^2}{\alpha}\frac{1}{r}-\frac{x^2}{r^2} \quad -(1)$$

$$=^? \frac{1}{b^2}-\frac{1}{a^2}-\frac{1}{r^2}+\left(\frac{r_0}{a}\right)\frac{1}{r}+\frac{r_0}{r^3}$$

where

$$\frac{1}{b^2}-\frac{1}{a^2}=\frac{E^2-m^2c^2}{c^2L^2} \quad -(2)$$

In general eq (1) leads to a cubic in r :

$$\left(\frac{x}{\alpha}\right)^2\left(\epsilon^2-1\right)r^3+\frac{2x^2}{\alpha}r^2-x^2r \quad -(3)$$

$$=\left(\frac{E^2-m^2c^2}{c^2L^2}\right)r^3-r+\frac{r_0}{a}r^2+r_0$$

i.e.

$$Ar^3+Br^2+Cr+D=0 \quad -(4)$$

where

$$A=\left(\frac{x}{\alpha}\right)^2\left(\epsilon^2-1\right)-\frac{E^2-m^2c^2}{c^2L^2} \quad -(5)$$

$$B=\frac{2x^2}{\alpha}-\frac{r_0}{a} \quad -(6)$$

$$C=1-x^2 \quad -(7)$$

$$D=-r_0 \quad -(8)$$

This is an absurd result. The reason is

2) that the EGR can be true only at the roots of the cubic (4), i.e at three values of r.

It is possible to try to force a solution with

$$r_0 \rightarrow 0 \quad - (9)$$

but this would lead to:

$$x^2 = 1 \quad - (10)$$

$$\frac{2x^2}{d} = \frac{r_0}{a} \quad - (11)$$

$$\left(\frac{x}{d}\right)^2 \left(\epsilon^2 - 1\right) = \frac{E^2 - m^2 c^2}{c^2 L^2} \quad - (12)$$

Using eq. (9) in eq. (11):

$$x \rightarrow 0 \quad - (13)$$

but from eq (10): $x = 1$. $- (14)$

This is an obvious self contradiction.