REFUTATION OF EINSTEINIAN GENERAL RELATIVITY : SLIDE 1.

1) THE EQUATION OF THE PRECESSING ELLIPSE

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

2α = right magnitude (latus rectum)

ϵ = eccentricity

x = precession constant

(r, θ) = plane cylindrical coordinates

2) THE PREDICTION OF EINSTEIN THEORY

$$\boxed{\sin^2(x\theta) =? \left(\frac{\alpha}{x\epsilon}\right)^2 \left(\frac{1}{b^2} - \frac{1}{a^2} + \frac{r_0}{ar} - \frac{1}{r^2} + \frac{r_0}{r^3}\right)} \quad -(2)$$

EQUATION (2) IS INCORRECT ON THE SIMPLEST ALGEBRAIC LEVEL.

$a = \frac{L}{mc}$, $b = \frac{cL}{E}$, $r_0 = \frac{2MG}{c^2}$

in the notation of UFT 202, Section 3

on www.aias.us

REFUTATION OF EINSTEINIAN GENERAL RELATIVITY : SLIDE 2.

1) THE FORCE LAW OF THE PRECESSING ELLIPSE:

$$\boxed{F(r) = -\frac{L^2}{mr^2}\left(\frac{x^2}{\alpha} + \frac{1}{r}\left(1 - x^2\right)\right)} \quad -(1)$$

Here L is the angular momentum, m the mass of a planet in orbit around the sun, x the precession constant of the ellipse, α the half right magnitude of the ellipse, r the radial coordinate.

2) THE PREDICTION OF EINSTEIN THEORY:

$$\boxed{F(r) =? \; -\frac{mMG}{r^2} - \frac{3MGL^2}{mc^2 r^4}} \quad -(2)$$

Here:

$$\alpha = \frac{L^2}{m^2 M G} \quad -(3)$$

M = mass of the sun, G = Newton constant, c = speed of light in vacuo.

These equations first appeared in UFT 193 on www.aias.us. The Einstein prediction (2) is completely incorrect.

REFUTATION OF EINSTEINIAN GENERAL RELATIVITY, SLIDE 3

1) THE METRIC FUNCTION OF THE PRECESSING ELLIPSE.

$$\boxed{m(r) = \frac{a^2}{r^2(a^2+r^2)}\left(\frac{r^4}{b^2} - \left(\frac{x\epsilon}{\alpha}\right)^2 \sin^2(x\theta)\, r^4\right)} \quad -(1)$$

where:

$$r = \frac{\alpha}{1+\epsilon\cos(x\theta)}$$

$$a = \frac{L}{mc}, \quad b = \frac{Lc}{E}.$$

2) THE PREDICTION OF THE EINSTEIN THEORY

$$\boxed{m(r) = 1 - \frac{2MG}{c^2 r}} \quad -(2)$$

where

$$ds^2 = c^2 d\tau^2 = c^2 dt^2\left(1-\frac{r_0}{r}\right) - \left(1-\frac{r_0}{r}\right)^{-1} dr^2 - r^2 d\theta^2,$$

$$r_0 = \frac{2MG}{c^2}.$$

This is a completely clear demonstration of the fact that Einstein is hopelessly wrong.

REFUTATION OF GENERAL RELATIVITY:

SLIDE 4

1) EINSTEIN'S INTEGRAL FOR LIGHT DEFLECTION

The current method for determining light deflection is:

$$\boxed{\Delta\theta = \frac{2}{x}\left(\sin^{-1}\frac{1}{\epsilon} - \sin^{-1}\left(\frac{1}{\epsilon} - \frac{\alpha}{R_0}\right)\right)} \quad -(1)$$

which is based on finite photon mass, Einstein's own assumption. Eq (1) is based directly on:

$$r = \frac{\alpha}{1 + \epsilon\cos(x\theta)}, \quad -(2)$$

R_0 = distance of closest approach.

Einstein's integral is the incorrect:

$$\Delta\theta =? \; 2\int_0^{1/R_0}\left(\frac{1}{R_0^2} - \frac{2M}{R_0^3} - u^2 + 2Mu^3\right)^{-1/2} du - \pi . \quad -(3)$$

2) EINSTEIN'S INCORRECT RESULT

This is

$$\boxed{\Delta\theta =? \; \frac{4MG}{c^2 R_0} \quad -(4)}$$

obtained incorrectly by regarding M as a variable. In fact M is a constant.

These results were given in UFT 202.

REFUTATION OF EINSTEINIAN GENERAL RELATIVITY:

SLIDE 5.

1) THE MOST GENERAL METRIC

In a spherically symmetric spacetime the most general infinitesimal line element is:

$$\boxed{ds^2 = c^2 d\tau^2 = c^2 m(r,t)\,dt^2 - n(r,t)\,dr^2 - r^2 d\theta^2} \quad -(1)$$

and the lagrangian is:

$$\mathcal{L} = \frac{1}{2} mc^2 = \frac{1}{2} m \left(c^2 m(r,t) \left(\frac{dt}{d\tau}\right)^2 - n(r,t) \left(\frac{dr}{d\tau}\right)^2 - r^2 \left(\frac{d\theta}{d\tau}\right)^2 \right) \quad -(2)$$

2) THE NULL GEODESIC METHOD USED BY EINSTEIN.

$$\boxed{\text{This is} \quad ds^2 = c^2 d\tau^2 =?\, 0} \quad -(3)$$

There are several problems with equation (3). Notably:

$$d\tau^2 =?\, 0 \quad -(4)$$

so introduces singularities into the lagrangian:

$$\frac{dt}{d\tau} = \frac{dr}{d\tau} = \frac{d\theta}{d\tau} =?\, \infty. \quad -(5)$$

As in slide 1, Einstein used the incorrect:

$$m(r,t) = \frac{1}{n(r,t)} =?\, 1 - \frac{r_0}{r} \quad -(6)$$

and eq (3) means zero photon mass, a contradiction.

REFUTATION OF EINSTEINIAN GENERAL RELATIVITY:

SLIDE 6, SELF CONTRADICTIONS.

1) LIGHT DEFLECTION

The integral used by Einstein is:

$$\Delta\theta = 2\int_{R_0}^{\infty} \frac{1}{r^2}\left(\frac{1}{b^2} - \left(1 - \frac{r_0}{r}\right)\left(\frac{1}{a^2} + \frac{1}{r^2}\right)\right)^{-1/2} dr - \pi, \quad -(1)$$

where $a = \frac{L}{mc}$, $b = \frac{cL}{E}$. $\quad -(2)$

a) Eq (1) is based on the incorrect metrical function

$$m(r) =? \ 1 - \frac{r_0}{r} \quad -(3)$$

b) Einstein assumed:

$$d\tau^2 =? \ 0 \quad -(4)$$

which means: $m =? \ 0, \quad a =? \ \infty \quad -(5)$

and $\frac{d\theta}{d\tau} =? \ \infty \quad -(6)$

c) He assumed circular orbits so:

$$\frac{dr}{d\tau} =? \ 0 \quad -(7)$$

but from eq. (4):

$$\frac{dr}{d\tau} =? \ \infty \quad -(8)$$

Therefore $dr / d\tau$ is both zero and infinite.

d) Assumption (7) means that:

$$\frac{1}{b^2} =? \left(1 - \frac{r_0}{r}\right)\left(\frac{1}{a^2} + \frac{1}{r^2}\right) \quad -(9)$$

so $\boxed{\Delta\theta =? \ \infty} \quad -(10)$

2) These self contradictions were first pointed out in UFT 150B.

2) GRAVITATIONAL TIME DELAY

This is just a simple extension of the light bending theory to give:

$$\frac{dr}{dt} = \frac{dr}{d\theta}\frac{d\theta}{dt} = \frac{dr}{d\theta}\frac{d\theta}{d\tau}\frac{d\tau}{dt} \quad -(11)$$

so the same self inconsistencies and errors are present in the theory of gravitational time delay.

REFUTATION OF EINSTEINIAN GENERAL RELATIVITY:

SLIDE 7 : GEOMETRICAL ERRORS

1) DEFINITION OF TORSION

The correct definition is

$$\boxed{T = d \wedge q + \omega \wedge q} \quad -(1)$$

in symbolic notation. Here:

T = Cartan torsion,
q = Cartan tetrad,
ω = spin connection.

2) EINSTEIN THEORY

$$\boxed{T = ? \, 0} \quad -(2)$$

This error means that the whole of Einsteinian general relativity is mathematically erroneous: notably perihelion precession; light deflection; gravitational time delay; black holes; big bang; gravitational radiation; geodetic or de Sitter precession; cosmological red shift theory; gravitational red shift theory.

The ECE theory cures all the problems by using eq. (1).

REFUTATION OF EINSTEINIAN GENERAL RELATIVITY:

SLIDE 8 : INCORRECT IDENTITY OF GEOMETRY

1) THE CORRECT IDENTITY

This is:

$$\boxed{D \wedge T := R \wedge q} \qquad -(1)$$

in symbolic notation. One side is identical with the other. Here D is the exterior covariant derivative, T is torsion and R is curvature, and q is the Cartan tetrad. Eq (1) is the Cartan identity. The Evans identity is an example of the Cartan identity.

2) EINSTEIN THEORY

$$\boxed{R \wedge q :=? \; 0} \qquad -(2)$$

because torsion is missing and was unknown to Einstein in 1915, when he published the field equation. In the obsolete literature eq. (2) is known as "the first Bianchi identity". The latter is a mirage because it relies on an incorrect geometry with missing torsion. It is not even clear that it was derived by Bianchi, or derived by Ricci. Eq. (2) was derived about twenty years before Cartan inferred torsion in the early nineteen twenties.

REFUTATION OF EINSTEINIAN GENERAL RELATIVITY:

SLIDE 9: INCORRECT SYMMETRY.

1) THE CORRECT SYMMETRY

This is:

$$\boxed{\Gamma^{\lambda}_{\mu\nu} = -\Gamma^{\lambda}_{\nu\mu}} \quad -(1)$$

where $\Gamma^{\lambda}_{\mu\nu}$ is the Riemann connection, it should be called the Christoffel connection because Riemann did not infer the idea. Riemann inferred the idea of the metric. Eq. (1) is the direct result of the way in which torsion and curvature are defined:

$$[D_\mu, D_\nu] V^\sigma = -[D_\nu, D_\mu] V^\sigma \quad -(2)$$

where

$$[D_\mu, D_\nu] V^\sigma = (D_\mu D_\nu - D_\nu D_\mu) V^\sigma \quad -(3)$$

and

$$D_\mu V^\sigma = \partial_\mu V^\sigma + \Gamma^{\sigma}_{\mu\lambda} V^\lambda \quad -(4)$$

2) THE INCORRECT EINSTEIN SYMMETRY

$$\boxed{\Gamma^{\lambda}_{\mu\nu} \overset{?}{=} \Gamma^{\lambda}_{\nu\mu}} \quad -(5)$$

which means:

$$[D_\mu, D_\nu] V^\sigma \overset{?}{=} 0 \quad -(6)$$

and

$$\Gamma^{\lambda}_{\mu\nu} \overset{?}{=} 0, \quad -(7)$$

i.e. no torsion and no curvature, a complete