

# Relativity Theory is Dead

By Professor Joe Nahhas, 1977

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**Hello, my name is Joe Nahhas in October 2009 holding my 1979 thermo book and showing my October 1979 stapled picture whispering relativity theory is dead**

**The replacement to all four classical quantum relativistic and strings is:  
Real time universal mechanics explained below and I dare all to prove me wrong**

**Abstract:** The elimination of relativity theory is a matter of time and not a matter of science. The problem in all of physics is wrong experimental data and measurements. Correcting data and measurements mistakes of past 150 years will cure physics from 20th century wrong physics. 20th century wrong physics starts with relativity theory. Taking all of relativity theory experimental proofs and proves that it amounts to nothing and a case of 109 years of Nobel Prize winner physicists and 400 Years of Astronomy that can not read a telescope is not going to end relativity. Physicists built 150 years of physics on

wrong concepts of relativity. Physics progress requires the death of relativity theory and 100,000 living physicists relativistic education attached to it. All relativity theory experimental is visual effects and the proofs are below and I challenge all to prove me wrong.

**This Article is Relativity Theory Death Certificate.**

- A- **General relativity** has 5 textbook and college taught experimental proofs
- 1- Mercury's Perihelion of 43 arc sec per century -----I
  - 2- GPS 45 micro second per century -----II
  - 3- Planetary Telecommunications time delays (Shapiro) 250 micro second round trip - III
  - 4- Pound Rebka Harvard University Davis Lab experiments ----- IV
  - 5- Lord Eddington's Light Bending Experiment. ----- V
- B- **Special relativity** is based on two erroneous principles
- 6- Length contraction ----- VI
  - 7- Constant velocity of light ----- VII
- That produced wrong physics of
- 8- Time Dilations ----- VIII
  - 9-  $E = mc^2$  ----- IX
  - 10- Nuclear dark energy ----- X

**Relativity theory Death Certificate**

**1- Real time Physics:** We can only measure past events. We can not measure something that did not happen. We can only measure things that had happened. What we measure in not what happened. We measure in present time an event that happened in past time.

Present time = present time  
 Present time = past time + [present time - past time]  
 Present time = past time + real time delays  
 Real time physics = event time physics + real time relativistic delays  
 What one sees is relativistic = what happened in an absolute event + relativistic effects  
 What happened in an event is absolute = real time physics - real time relativistic effects.  
 Observer time = observed time + time delays  
 Real time = absolute time + time delays

**Real time = Event time + time delays**  
**Real time Physics = event time Physics + time delays Physics**

**2 - Real time Universe**

All there is in the Universe is objects of mass  $m$  moving in space  $(x, y, z)$  at a location  $\mathbf{r} = \mathbf{r}(x, y, z)$ . The state of any object in the Universe can be expressed as the product.

$\mathbf{S} = m \mathbf{r}$ ; State = mass x location:

**A - Real time location**

An object at of absolute location  $\mathbf{r}$  when measured in real time a decay factor of  $e^{[\lambda(r)] t}$  and a motion factor of  $e^{[i \omega(r)] t}$  is introduced to a total factor of  $e^{[\lambda(r) + i \omega(r)] t}$  and the location of an object measured in real time is  $\mathbf{r} = \mathbf{r}(0) e^{[\lambda(r) + i \omega(r)] t}$

### B - Real time mass

An object at of absolute mass  $m$  when measured in real time a decay factor of  $e^{[\lambda(m)] t}$  and a motion factor of  $e^{[i \omega(m)] t}$  is introduced to a total factor of  $e^{[\lambda(m) + i \omega(m)] t}$  and the location of an object measured in real time is  $m = m(0) e^{[\lambda(m) + i \omega(m)] t}$

### 3 - Real time location along the line of measurement and perpendicular to the line of measurement.

$$\mathbf{S} = \mathbf{r} e^{[\lambda(r) + i \omega(r)] t} = \mathbf{r} e^{[\lambda(r)] t} e^{i \omega(r) t}$$

$$\mathbf{S}_x + i \mathbf{S}_y = \mathbf{r} e^{[\lambda(r)] t} [\cosine \omega t + i \text{sine } \omega t]$$

Along the line of measurement

$$\mathbf{S}_x = \mathbf{r} e^{[\lambda(r)] t} \cosine \omega t$$

$$\mathbf{S}_x = \mathbf{r} e^{[\lambda(r)] t} \sqrt{[1 - \text{sine}^2 \omega t]}$$

Perpendicular to line of measurements

$$\mathbf{S}_y = \mathbf{r} e^{[\lambda(r)] t} \text{sine } \omega t$$

Taking  $\omega T = \text{arc tan}(v/c)$

Along the line of measurement

$$\text{Then } \mathbf{S}_x = \mathbf{r} e^{[\lambda(r)] t} \sqrt{[1 - \text{sine}^2 \text{arc tan}(v/c)]}$$

Perpendicular to line of measurements

$$\text{And } \mathbf{S}_y = \mathbf{r} e^{[\lambda(r)] t} \text{sine arc tan}(v/c)$$

### 4 - Real time location motion visual effects along the line of measurement

$$\mathbf{S}_x = \mathbf{r} e^{[\lambda(r)] t} \sqrt{[1 - \text{sine}^2 \text{arc tan}(v/c)]}$$

With  $\lambda(r) = 0$

Then

$$\mathbf{S}_x = \mathbf{r} \sqrt{[1 - \text{sine}^2 \text{arc tan}(v/c)]}$$

### 5 - Lorentz's length contraction historical mistake.

$$\mathbf{S}_x = \mathbf{r} \sqrt{[1 - \text{sine}^2 \text{arc tan}(v/c)]}$$

With  $(v/c) \ll 1$

$$\text{Then } \mathbf{S}_x = \mathbf{r} \sqrt{[1 - (v/c)^2]}$$

This is Lorentz's length contraction 150 years historical mistake ----- VI

### 5 - Einstein's constant velocity of light historical mistake

$$\mathbf{S}_x = \mathbf{r} \sqrt{[1 - (v/c)^2]}$$

$$\mathbf{S}_x = \mathbf{c} \Gamma \text{ and } \mathbf{r} = \mathbf{c} t \text{ -----VII}$$

$$\text{Then } \mathbf{c} \Gamma = \mathbf{c} t \sqrt{[1 - (v/c)^2]}$$

$$\text{And } \Gamma = t \sqrt{[1 - (v/c)^2]}$$

### 6 - Einstein's special relativity theory time dilation historical mistake

$$\Gamma = t \sqrt{1 - (v/c)^2} \text{----- VIII}$$

### 7 - Time Factor

$$S_x = r \sqrt{1 - \text{sine}^2 \text{ arc tan } (v/c)}$$

$$S_x = r \sqrt{1 - \text{sine}^2 \text{ arc tan } (v/c)}$$

If  $(v/c) = (1/n) = (1/\text{refractive index})$  and the velocity is constant in absolute value

Or  $S_x = c \Gamma(x)$  and  $r = c t$ ; then

$$\Gamma(x) = t \sqrt{1 - \text{sine}^2 \text{ arc tan } (v/c)}$$

Along the line of measurement

$$\Gamma(x) = t \sqrt{1 - \text{sine}^2 \text{ arc tan } (1/n)}$$

Perpendicular to the line of measurement

$$S_y = r \text{ sine arc tan } (v/c)$$

$$S_y = r \text{ sine arc tan } (v/c)$$

$$\text{And } \Gamma(y) = t \text{ sine arc tan } (v/c) = t \text{ sine arc tan } (1/n)$$

### 8- Reins and Cowan 1953 Savannah River Neutrino experiment historical dark energy mistake.

Along the line of measurement

$$\Gamma(x) = t \sqrt{1 - \text{sine}^2 \text{ arc tan } (1/n)}$$

With  $t = 25 \mu s$

And  $n$  of water  $= 1.33 < n < 1.44 = n$  of tri ethyl benzene

$$\Gamma(x) = t \sqrt{1 - \text{sine}^2 \text{ arc tan } (1/n)}$$

$$4.67 \mu s < \Gamma(x) < 5 \mu s \text{----- X}$$

### 9 - Real time Straight line

$$S = r e^{[\lambda(r) + i \omega(r)] t}$$

With  $\lambda(r) = 0$

$$\text{Then } S = r e^{[i \omega(r)] t} = r [\text{cosine } \omega t + i \text{ sine } \omega t]$$

Let  $r = r \hat{i} = v t \hat{i}$

$$\text{Then } S = v t \hat{i} [\text{cosine } \omega t + i \text{ sine } \omega t]$$

$$S_x + i S_y = v t \hat{i} [\text{cosine } \omega t] + v t \hat{i} [i \text{ sine } \omega t]$$

Along the line of measurement

$$S_x = v t \text{ cosine } \omega t$$

$$S_y = v t \text{ sine } \omega t$$

At time of measurement  $w T = \text{arc tan } (v/c)$

$$S_x = v t \text{ cosine arc tan } (v/c)$$

$$S_y = v t \text{ sine arc tan } (v/c)$$

If  $v = c$

$$\text{Then } S_x = v t \text{ cosine arc tan } (v/c) = c t \text{ cosine arc tan } (c/c) = c t \text{ cosine } (\pi/4) = c t / \sqrt{2}$$

$$S_y = v t \text{ sine arc tan } (v/c) = c t \text{ sine arc tan } (c/c) = c t \text{ sine } (\pi/4) = c t / \sqrt{2}$$

$$S = c t$$

If  $r = r(0)$

$$S_x = r(0) \text{ cosine arc tan } (v/c) = r(0) \sqrt{1 - \text{sine}^2 \text{ arc tan } (v/c)}$$

$$S_y = r(0) \text{ sine arc tan } (v/c)$$

### 10 - Real time location in Polar Coordinates

With  $\mathbf{r}$  = location;  $\mathbf{v}$  = velocity;  $\boldsymbol{\gamma}$  = acceleration

And  $\mathbf{r} = r \mathbf{r}(t); \mathbf{v} = r' \mathbf{r}(t) + r \theta' \boldsymbol{\theta}(t); \boldsymbol{\gamma} = (r'' - r\theta'^2)\mathbf{r}(t) + (2r'\theta' + r\theta'')\boldsymbol{\theta}(t)$

$$\mathbf{S} = r \mathbf{r}(t) e^{[\lambda(r) + i\omega(r)]t}$$

### 11 - Real time Velocity

$$\text{Let } \mathbf{S} = r e^{[\lambda(r) + i\omega(r)]t}$$

Then Velocity =  $\mathbf{P} = d\mathbf{S}/dt = \{[(d\mathbf{r}/dt) + r[\lambda(r) + i\omega(r)]]\} e^{[\lambda(r) + i\omega(r)]t}$

$$\mathbf{P} = \{[\mathbf{v} + r[\lambda(r) + i\omega(r)]]\} e^{[\lambda(r) + i\omega(r)]t}$$

### 12 - Real time Areal velocity

$$A = |\mathbf{r} \times d\mathbf{r}/2|$$

$$\text{Areal velocity: } dA/dt = |\mathbf{r} \times (d\mathbf{r}/2dt)| = |\mathbf{r} \times \mathbf{v}/2|$$

$$\text{And } |\mathbf{S} \times (d\mathbf{S}/2dt)| = |\mathbf{S} \times \mathbf{P}/2|$$

$$= |\mathbf{r} e^{[\lambda(r) + i\omega(r)]t} \times \{[\mathbf{v} + r[\lambda(r) + i\omega(r)]]\} e^{[\lambda(r) + i\omega(r)]t} / 2|$$

$$= |\mathbf{r} \times \mathbf{v}/2| e^{2[\lambda(r) + i\omega(r)]t}$$

$$|\mathbf{S} \times \mathbf{P}/2| = |\mathbf{r} \times \mathbf{v}/2| e^{2[\lambda(r) + i\omega(r)]t}$$

### 13 - Real time Areal velocity in polar coordinates

$$|\mathbf{S} \times \mathbf{P}/2| = |\mathbf{r} \times \mathbf{v}/2| e^{2[\lambda(r) + i\omega(r)]t}$$

$$= |[r\mathbf{r}(t)] \times [r'\mathbf{r}(t) + r\theta'\boldsymbol{\theta}(t)]/2|$$

$$= (r^2\theta'/2) [e^{2[\lambda(r) + i\omega(r)]t}]$$

### 14- Real time motion Areal velocity visual effects in polar coordinates

$$|\mathbf{S} \times \mathbf{P}/2| = |\mathbf{r} \times \mathbf{v}/2| e^{2[\lambda(r) + i\omega(r)]t}$$

$$= |[r\mathbf{r}(t)] \times [r'\mathbf{r}(t) + r\theta'\boldsymbol{\theta}(t)]/2|$$

$$= (r^2\theta'/2) [e^{2[\lambda(r) + i\omega(r)]t}]$$

With  $\lambda(r) = 0$

$$|\mathbf{S} \times \mathbf{P}/2| = (r^2\theta'/2) [e^{2i\omega(r)t}]$$

### 15 - Real time motion Areal velocity in polar coordinates along the line of measurement

$$|\mathbf{S} \times \mathbf{P}/2| = |\mathbf{r} \times \mathbf{v}/2| e^{2[\lambda(r) + i\omega(r)]t}$$

$$= |[r\mathbf{r}(t)] \times [r'\mathbf{r}(t) + r\theta'\boldsymbol{\theta}(t)]/2|$$

$$= (r^2\theta'/2) [e^{2[\lambda(r) + i\omega(r)]t}]$$

With  $\lambda(r) = 0$

$$|\mathbf{S} \times \mathbf{P}/2| = (r^2\theta'/2) [e^{2i\omega(r)t}]$$

$$= (r^2 \theta'/2) [\cosine 2 \omega t + i \text{ sine } 2 \omega t]$$

$$| \mathbf{S} \times \mathbf{P}/2 | (x) = (r^2 \theta'/2) \cosine 2 \omega t$$

$$= (r^2 \theta'/2) [1 - \text{sine}^2 \omega t]$$

$$| \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) = - r^2 \theta' \text{ sine}^2 \omega t$$

**16- 400 years of wrong Astronomy of real time Areal velocity visual effects**

$$| \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) = - r^2 \theta' \text{ sine}^2 \omega t$$

With  $\omega T = \text{arc tan } (v/c)$

$$| \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) = - r^2 \theta' \text{ sine}^2 \text{ arc tan } (v/c)$$

With  $(v/c) \ll 1$

Then  $| \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) = - r^2 \theta' (v/c)^2$

**17- Real time Areal velocity visual effects for an ellipse**

Then  $| \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) = - r^2 \theta' (v/c)^2$

With  $r^2 \theta' = 2 \pi a b$

Then  $| \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) = [- 2 \pi a b/T] (v/c)^2$

**18 - Advance of Perihelion visual effects**

$$\{ | \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) \} 2/a^2 (1 - \epsilon)^2 = [- 2 \pi a b/T] (v/c)^2 [2/ a^2 (1 - \epsilon)^2]$$

$$= - 4 \pi (b/a) (v/c)^2 / T (1 - \epsilon)^2$$

$$= - 4 \pi \{ [\sqrt{(1 - \epsilon^2)}] / T (1 - \epsilon)^2 \} (v/c)^2$$

**19 - Advance of Perihelion visual effects in arc sec/ century.**

$$\{ | \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) \} 2/a^2 (1 - \epsilon)^2 = - 4 \pi \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2$$

$$\{ (180/\pi) (36526) (3600) \} = [-720x36526x3600/T] \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2$$

**20 - Advance of Perihelion visual effects of Planet mercury in arc sec/ century.**

$$\{ | \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) \} 2/a^2 (1 - \epsilon)^2 = - 4 \pi \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2$$

$$\{ (180/\pi) (36526) (3600) \} = [-720x36526x3600/T] \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2$$

With  $\epsilon = .206$ ,  $T = 88$ ;  $v = v^* + v^\circ$ ;  $v^* = \text{orbital velocity} = 47.9 \text{ km/sec}$   $v^\circ = \text{spin speed of observer on earth} = 0.3 \text{ km/sec}$  Europe.  $v = v^* + v^\circ = 48.2 \text{ km/sec}$ ;  $v^\circ (\text{mercury}) = 3 \text{ m/s}$

And  $W'' (\text{calculated}) = [-720x36526x3600/T] \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2$

$$= [-720x36526x3600/88] (1.552) (48.2/300,000)^2$$

$$= 43.10 \text{ Arc sec /century -----I}$$

**21 - Advance of Perihelion visual effects of Planet Venus in arc sec/ century.**

$$\{ | \mathbf{S} \times \mathbf{P}/2 | (x) - (r^2 \theta'/2) \} 2/a^2 (1 - \epsilon)^2 = - 4 \pi \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2$$

$$\{ (180/\pi) (36526) (3600) \} = [-720x36526x3600/T] \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2$$

With  $\epsilon = .206$ ,  $T = 244.7$ ;  $v = v^* + v^\circ$ ;  $v^* = \text{orbital velocity} = 35.12 \text{ km/sec}$   $v^\circ = \text{spin speed of observer on earth} = 0.3 \text{ km/sec}$  Europe. And  $v^\circ (\text{Mercury}) = 6.52 \text{ km/sec}$

$v = v^* + v^\circ = 41.94 \text{ km/sec}$

And  $W'' (\text{calculated}) = [-720x36526x3600/T] \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2$

$$= [-720x36526x3600/244.7] (1.00761) (41.94/300,000)^2$$

$$= 7.6192 \text{ Arc sec /century}$$

**22 - Binary stars apsidal motion in arc sec**

$$W'' \text{ (calculated)} = [-720 \times 36526 \times 3600 / T] \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2 \text{ arc sec/ century}$$

**23 - Global Positioning Systems: ----- II**

$$U \text{ (seconds/day)} = [24/360] [-720 \times 3600] \{ [\sqrt{(1 - \epsilon^2)}] / (1 - \epsilon)^2 \} (v/c)^2 \text{ sec/day}$$

**33 - Interplanetary telecommunications around the Sun round trip time delays**

$$\Delta \Gamma = [16\pi G M/c^3] [1 +/- (v^o/v^*)]^2$$

**24 - Interplanetary telecommunications around the Sun round trip time delays  
Nahhas constant**

$$\Gamma (0) = 16\pi G M/c^3 = 247.597 \mu s$$

**25 - Mars telecommunications around the sun time delays Shapiro's historical mistake**

$$\Delta \Gamma = [16\pi G M/c^3] [1 + (v^o/v^*)]^2 = 250 \mu s \text{ ----- III}$$

**26 - Circular motion Advance of starting point visual effects**

$$W'' \text{ (calculated)} = [-720 \times 36526 \times 3600 / T] (v/c)^2 \text{ arc sec/ century; } \epsilon = 0$$

**27 - Pound- Rebka Gravitational confused for light aberrations: S = r Exp [i ω t]**

$$\text{Or } \lambda (S) = \lambda (r) \text{ Exp } [i \omega t]$$

Measurements are defined at t = T; ω T = arc tan (v/c)

$$\text{With sine } \omega T = \text{sine arc tan } (v/c); \text{ cosine arc tan } \omega(r) T = \sqrt{1 - [\text{sine arc tan } (v/c)]^2}$$

And with v << c; then ω(r) T = arc tan v/c ≈ v/c

Then sine ω T = sine arc tan v/c ≈ v/c;

$$\text{And cosine } \omega T = \text{cosine arc tan } v/c = \sqrt{1 - \text{sine}^2 \text{ arc tan } (v/c)} = \sqrt{1 - (v/c)^2}$$

$$\text{Or } \lambda (S) = \lambda (r) \{ \sqrt{1 - (v/c)^2} + i (v/c) \} = \text{Real } \lambda (S) + \text{Imaginary } \lambda (S)$$

$$\text{Projected or Real } \lambda (S) = \lambda (r) \sqrt{1 - (v/c)^2} \approx \lambda (r) [1 - 1/2(v/c)^2]$$

$$\Delta \lambda = \text{real } \lambda (S) - \lambda (r)$$

$$\Delta \lambda = \lambda (r) \sqrt{1 - (v/c)^2} - \lambda (r)$$

$$\Delta \lambda = - \lambda (r) (v/c)^2$$

$$\Delta \lambda = - \lambda (r) (v/c)^2 / 2 \text{ Up}$$

$$\Delta \lambda \text{ (total)} / \lambda (r) = -1/2(v/c)^2[\text{up}] - \{1/2(v/c)^2[\text{down}]\} = - (v/c)^2$$

$$\Delta \lambda / \lambda = - (v/c)^2$$

v<sup>2</sup> = 2gh; g = 9.81km<sup>2</sup>/s<sup>2</sup> gravitational acceleration; h = height; h = 22.5meters

$$\Delta v/v \text{ [Total]} = -\Delta \lambda / \lambda = + (v/c)^2 = [2gh/c^2]$$

$$\Delta v/v = 4.93 \times 10^{-15} \text{ ----- IV}$$

**28 - Light bending: Lord Eddington confusion with light aberrations**

$$S = r \text{ Exp } [i \omega t]$$

From Kepler's Equation: r<sup>2</sup> θ' = 2h = 2A/T

$$\text{With } h = S^2(r, t) \theta'(r, t) = r^2 (\theta, t) \theta' (\theta, t) = r^2 (\theta, 0) \text{ Exp } [2i \omega t] \theta' (\theta, 0)$$

$$\text{And } \theta' (\theta, t) = \theta' (\theta, 0) \theta'(0, t) = [h / r^2 (\theta, 0)] \text{ Exp } [-2i \omega(r) t]$$

Then  $\theta'(\theta, t) = [h/r^2(\theta, 0)] \{1 - 2\sin^2\omega(r) t - 2i \sin \omega(r) t \cos \omega(r) t\}$   
 Now  $[t \theta'(\theta, t)] = [2A/r^2(\theta, 0)] [1 - 2\sin^2\omega(r) t] - 2i [2A/r^2(\theta, 0)] [\sin \omega(r) t \cos \omega(r) t]$   
 $= \Delta x + i \Delta y$

$$\Delta \theta = \Delta x - [A/r^2(\theta, 0)] = - [A/r^2(\theta, 0)] [4\sin^2\omega(r) t]; \omega(r) t = \arctan v/c$$

$$\Delta \theta = - [A/r^2(\theta, 0)] [4\sin^2 \arctan v/c]$$

$$\Delta \theta = - [A/r^2(\theta, 0)] 4 (v/c)^2$$

And  $[4\sin^2 \arctan v/c] \approx 1.757857113''$

$v^2 = GM/R$ ; G = Gravitational constant; M = Sun mass; R = sun radius

$$\Delta \theta = [A/r^2(\theta, 0)] [1.75'']; A = \text{area}$$

The values depend on near by stars and the measured values fit this equation.

**Russians in 1936;  $\Delta \theta = 2.74$**

$$[A/r^2(\theta, 0)] = \pi/2$$

$$\Delta \theta = \pi/2(1.75'') = 2.74'' \text{----- V}$$

### 29 - Universal Mechanics

$S = m \mathbf{r}$ ; State = mass x distance

$$\mathbf{P} = d\mathbf{S}/dt = d(m \mathbf{r})/dt = m (d\mathbf{r}/dt) + (dm/dt) \mathbf{r}$$

Velocity =  $\mathbf{v} = (d\mathbf{r}/dt)$ ; mass rate change =  $m' = (dm/dt)$

$\mathbf{P} = m \mathbf{v} + m' \mathbf{r}$ ; Momentum = change of state = change in location or change in mass

$$\mathbf{F} = d\mathbf{P}/dt = d^2\mathbf{S}/dt^2 = d[m (d\mathbf{r}/dt) + (dm/dt) \mathbf{r}]/dt$$

$$= m d^2\mathbf{r}/dt^2 + (dm/dt) (d\mathbf{r}/dt) + (dm/dt) (d\mathbf{r}/dt) + (d^2m/dt^2) \mathbf{r}$$

$$\mathbf{F} = m d^2\mathbf{r}/dt^2 + 2 (dm/dt) (d\mathbf{r}/dt) + (d^2m/dt^2) \mathbf{r}$$

Force = Change of momentum

$$\mathbf{F} = m \mathbf{a} + 2 m' \mathbf{v} + m'' \mathbf{r}$$

Acceleration =  $\mathbf{a} = d^2\mathbf{r}/dt^2$ ; mass acceleration =  $d^2m/dt^2 = m''$

### 30 - Real time two body problem

In Polar coordinates

$$\text{With } d^2(m r)/dt^2 - (m r) \theta'^2 = -GmM/r^2 \quad \text{Newton's Gravitational Equation} \quad (1)$$

$$\text{And } d(m^2 r^2 \theta')/dt = 0 \quad \text{Central force law} \quad (2)$$

$$(2): d(m^2 r^2 \theta')/dt = 0$$

Then  $m^2 r^2 \theta' = \text{constant}$

$$= H(0, 0)$$

$$= m^2(0, 0) h(0, 0); h(0, 0) = r^2(0, 0) \theta'(0, 0)$$

$$= m^2(0, 0) r^2(0, 0) \theta'(0, 0); h(\theta, 0) = [r^2(\theta, 0)] [\theta'(\theta, 0)]$$

$$= [m^2(\theta, 0)] h(\theta, 0); h(\theta, 0) = [r^2(\theta, 0)] [\theta'(\theta, 0)]$$

$$= [m^2(\theta, 0)] [r^2(\theta, 0)] [\theta'(\theta, 0)]$$

$$= [m^2(\theta, t)] [r^2(\theta, t)] [\theta'(\theta, t)]$$

$$= [m^2(\theta, 0) m^2(0, t)] [r^2(\theta, 0) r^2(0, t)] [\theta'(\theta, t)]$$

$$= [m^2(\theta, 0) m^2(0, t)] [r^2(\theta, 0) r^2(0, t)] [\theta'(\theta, 0) \theta'(0, t)]$$

With  $m^2 r^2 \theta' = \text{constant}$

Differentiate with respect to time

$$\text{Then } 2mm'r^2\theta' + 2m^2r r'\theta' + m^2r^2\theta'' = 0$$



Divide by  $m^2 r^2 \theta'$

$$\text{Then } 2(m'/m) + 2(r'/r) + \theta''/\theta' = 0$$

This equation will have a solution  $2(m'/m) = 2[\lambda(m) + i\omega(m)]$

$$\text{And } 2(r'/r) = 2[\lambda(r) + i\omega(r)]$$

$$\text{And } \theta''/\theta' = -2\{\lambda(m) + \lambda(r) + i[\omega(m) + \omega(r)]\}$$

$$\text{Then } (m'/m) = [\lambda(m) + i\omega(m)]$$

$$\text{Or } d m/m d t = [\lambda(m) + i\omega(m)]$$

$$\text{And } dm/m = [\lambda(m) + i\omega(m)] d t$$

$$\text{Then } m = m(0) \text{Exp} [\lambda(m) + i\omega(m)] t$$

$$m = m(0) m(0, t); m(0, t) \text{Exp} [\lambda(m) + i\omega(m)] t$$

With initial spatial condition that can be taken at  $t = 0$  anywhere then  $m(0) = m(\theta, 0)$

$$\text{And } m = m(\theta, 0) m(0, t) = m(\theta, 0) \text{Exp} [\lambda(m) + i\omega(m)] t; \text{Exp} = \text{Exponential}$$

$$\text{And } m(0, t) = \text{Exp} [\lambda(m) + i\omega(m)] t$$

Similarly we can get

$$\text{Also, } r = r(\theta, 0) r(0, t) = r(\theta, 0) \text{Exp} [\lambda(r) + i\omega(r)] t$$

$$\text{With } r(0, t) = \text{Exp} [\lambda(r) + i\omega(r)] t$$

$$\text{Then } \theta'(\theta, t) = \{H(0, 0)/[m^2(\theta, 0) r(\theta, 0)]\} \text{Exp}\{-2\{[\lambda(m) + \lambda(r)]t + i[\omega(m) + \omega(r)]t\}\} \text{-----I}$$

$$\text{And } \theta'(\theta, t) = \theta'(\theta, 0)\} \text{Exp}\{-2\{[\lambda(m) + \lambda(r)]t + i[\omega(m) + \omega(r)]t\}\} \text{-----I}$$

$$\text{And, } \theta'(\theta, t) = \theta'(\theta, 0) \theta'(0, t)$$

$$\text{And } \theta'(0, t) = \text{Exp}\{-2\{[\lambda(m) + \lambda(r)]t + i[\omega(m) + \omega(r)]t\}\}$$

$$\text{Also } \theta'(\theta, 0) = H(0, 0)/m^2(\theta, 0) r^2(\theta, 0)$$

$$\text{And } \theta'(0, 0) = \{H(0, 0)/[m^2(0, 0) r(0, 0)]\}$$

$$\text{With (1): } d^2(m r)/dt^2 - (m r) \theta'^2 = -GmM/r^2 = -Gm^3M/m^2r^2$$

$$\text{And } d^2(m r)/dt^2 - (m r) \theta'^2 = -Gm^3(\theta, 0) m^3(0, t) M/(m^2r^2)$$

$$\text{Let } m r = 1/u$$

$$\text{Then } d(m r)/d t = -u'/u^2 = -(1/u^2) (\theta') d u/d \theta = (-\theta'/u^2) d u/d \theta = -H d u/d \theta$$

$$\text{And } d^2(m r)/dt^2 = -H\theta' d^2u/d\theta^2 = -Hu^2 [d^2u/d\theta^2]$$

$$-Hu^2 [d^2u/d\theta^2] - (1/u) (Hu^2)^2 = -Gm^3(\theta, 0) m^3(0, t) Mu^2$$

$$[d^2u/d\theta^2] + u = Gm^3(\theta, 0) m^3(0, t) M/H^2$$

$$t = 0; m^3(0, 0) = 1$$

$$u = Gm^3(\theta, 0) M/H^2 + A \text{cosine } \theta = Gm(\theta, 0) M(\theta, 0)/h^2(\theta, 0)$$

$$\text{And } m r = 1/u = 1/[Gm(\theta, 0) M(\theta, 0)/h(\theta, 0) + A \text{cosine } \theta]$$

$$= [h^2/Gm(\theta, 0) M(\theta, 0)]/\{1 + [Ah^2/Gm(\theta, 0) M(\theta, 0)] [\text{cosine } \theta]\}$$

$$= [h^2/Gm(\theta, 0) M(\theta, 0)]/(1 + \varepsilon \text{cosine } \theta)$$

$$\text{Then } m(\theta, 0) r(\theta, 0) = [a(1-\varepsilon^2)/(1+\varepsilon \text{cosine } \theta)] m(\theta, 0)$$

Dividing by  $m(\theta, 0)$

$$\text{Then } r(\theta, 0) = a(1-\varepsilon^2)/(1+\varepsilon \text{cosine } \theta)$$

This is Newton's Classical Equation solution of two body problem which is the equation of an ellipse of semi-major axis of length a and semi minor axis  $b = a \sqrt{1 - \epsilon^2}$  and focus length  $c = \epsilon a$

And  $m r = m(\theta, t) r(\theta, t) = m(\theta, 0) m(0, t) r(\theta, 0) r(0, t)$

Then,  $r(\theta, t) = [a(1-\epsilon^2)/(1+\epsilon\cos\theta)] \{\text{Exp} [\lambda(r) + i\omega(r)t]\}$  ----- II

This is Newton's time dependent equation that is missed for 350 years

If  $\lambda(m) \approx 0$  fixed mass and  $\lambda(r) \approx 0$  fixed orbit; then

Then  $r(\theta, t) = r(\theta, 0) r(0, t) = [a(1-\epsilon^2)/(1+\epsilon\cos\theta)] \text{Exp } i\omega(r)t$

And  $m = m(\theta, 0) \text{Exp} [i\omega(m)t] = m(\theta, 0) \text{Exp } i\omega(m)t$

$$\begin{aligned} \text{We Have } \theta'(0, 0) &= h(0, 0)/r^2(0, 0) = 2\pi ab/ Ta^2(1-\epsilon)^2 \\ &= 2\pi a^2 [\sqrt{1-\epsilon^2}]/T a^2(1-\epsilon)^2 \\ &= 2\pi [\sqrt{1-\epsilon^2}]/T(1-\epsilon)^2 \end{aligned}$$

$$\begin{aligned} \text{Then } \theta'(0, t) &= \{2\pi [\sqrt{1-\epsilon^2}]/ T(1-\epsilon)^2\} \text{Exp} \{-2[\omega(m) + \omega(r)]t\} \\ &= \{2\pi [\sqrt{1-\epsilon^2}]/ (1-\epsilon)^2\} \{\cosine 2[\omega(m) + \omega(r)]t - i \sin 2[\omega(m) + \omega(r)]t\} \end{aligned}$$

$$\begin{aligned} \text{And } \theta'(0, t) &= \theta'(0, 0) \{1 - 2\sin^2 [\omega(m) + \omega(r)]t\} \\ &\quad - i 2i \theta'(0, 0) \sin [\omega(m) + \omega(r)]t \cosine [\omega(m) + \omega(r)]t \end{aligned}$$

$$\begin{aligned} \text{Then } \theta'(0, t) &= \theta'(0, 0) \{1 - 2\text{sine}^2 [\omega(m)t + \omega(r)t]\} \\ &\quad - 2i \theta'(0, 0) \sin [\omega(m) + \omega(r)]t \cosine [\omega(m) + \omega(r)]t \end{aligned}$$

$$\begin{aligned} \Delta \theta'(0, t) &= \text{Real } \Delta \theta'(0, t) + \text{Imaginary } \Delta \theta(0, t) \\ \text{Real } \Delta \theta(0, t) &= \theta'(0, 0) \{1 - 2 \text{sine}^2 [\omega(m)t + \omega(r)t]\} \end{aligned}$$

$$\begin{aligned} \text{Let } W(\text{calculated}) &= \Delta \theta'(0, t) (\text{observed}) = \text{Real } \Delta \theta(0, t) - \theta'(0, 0) \\ &= -2\theta'(0, 0) \text{sine}^2 [\omega(m)t + \omega(r)t] \\ &= -2[2\pi [\sqrt{1-\epsilon^2}]/T(1-\epsilon)^2] \text{sine}^2 [\omega(m)t + \omega(r)t] \end{aligned}$$

$$W(\text{Cal}) = -4\pi \{[\sqrt{1-\epsilon^2}]/T(1-\epsilon)^2\} \text{sine}^2 [\omega(m)t + \omega(r)t]$$

If this apsidal motion is to be found as visual effects, then

With,  $v^\circ = \text{spin velocity}$ ;  $v^* = \text{orbital velocity}$ ;  $v^\circ/c = \tan \omega(m) T^\circ$ ;  $v^*/c = \tan \omega(r) T^*$

Where  $T^\circ = \text{spin period}$ ;  $T^* = \text{orbital period}$

And  $\omega(m) T^\circ = \text{Inverse tan } v^\circ/c$ ;  $\omega(r) T^* = \text{Inverse tan } v^*/c$

$W(\text{ob}) = -4\pi [\sqrt{1-\epsilon^2}]/T(1-\epsilon)^2 \text{sine}^2 [\text{Inverse tan } v^\circ/c + \text{Inverse tan } v^*/c]$  radians

Multiplication by  $180/\pi$

$W(\text{ob}) = (-720/T) \{[\sqrt{1-\epsilon^2}]/(1-\epsilon)^2\} \text{sine}^2 \{\text{Inverse tan } [v^\circ/c + v^*/c]/ [1 - v^\circ v^*/c^2]\}$   
degrees and multiplication by 1 century = 36526 days and using T in days

$W^\circ(\text{ob}) = (-720 \times 36526 / T \text{days}) \{[\sqrt{1-\epsilon^2}]/(1-\epsilon)^2\} \times$   
 $\text{sine}^2 \{\text{Inverse tan } [v^\circ/c + v^*/c]/ [1 - v^\circ v^*/c^2]\}$  degrees/100 years

### Approximations I

With  $v^\circ \ll c$  and  $v^* \ll c$ , then  $v^\circ v^* \ll c^2$  and  $[1 - v^\circ v^*/c^2] \approx 1$

Then  $W^\circ$  (ob)  $\approx (-720 \times 36526 / \text{Tdays}) \{ [\sqrt{(1-\epsilon^2)}] / (1-\epsilon)^2 \} \times \text{sine}^2 \text{Inverse tan } [v^\circ/c + v^*/c]$   
degrees/100 years

### Approximations II

With  $v^\circ \ll c$  and  $v^* \ll c$ , then  $\text{sine Inverse tan } [v^\circ/c + v^*/c] \approx (v^\circ + v^*)/c$

$W^\circ$  (Cal) =  $(-720 \times 36526 / \text{Tdays}) \{ [\sqrt{(1-\epsilon^2)}] / (1-\epsilon)^2 \} \times [(v^\circ + v^*)/c]^2$  degrees/100 years

### **In arc second per century**

$W''$  (Cal-arc sec) =  $(-720 \times 36526 \times 3600 / \text{Tdays}) \{ [\sqrt{(1-\epsilon^2)}] / (1-\epsilon)^2 \} \times [(v^\circ + v^*)/c]^2$

In Time seconds

$W''$  (Cal- sec) =  $(-720 \times 36526 \times 3600 / 15 \text{Tdays}) \{ [\sqrt{(1-\epsilon^2)}] / (1-\epsilon)^2 \} \times [(v^\circ + v^*)/c]^2$

31- The 11 binary stars systems that no one ever solved or knew how to solve including Einstein and all 100,000 Physicists all solved by this formula

$W^\circ$  (Cal) =  $(-720 \times 36526 / \text{Tdays}) \{ [\sqrt{(1-\epsilon^2)}] / (1-\epsilon)^2 \} \times [(v^\circ + v^*)/c]^2$  degrees/100 years

[www.worldsci.org](http://www.worldsci.org) click on scientists Joe Alexander Nahhas

1- Camelopardalis

2 - AI Hya

3- CM Draconis

4- DI Herculis

5 - V1143 Cygni

6- V541 Cygni

7- Alpha-Borealis

8 - 731 Cepheid

9 - NV Canis Majoris

10 - CW Canis Majoris

11- GG Orion

32- Visual  $E = mc^2$

$$E = mv^2/2 = mc^2/2$$

$$\mathbf{P} = \{[\mathbf{v} + \mathbf{r} [\lambda(r) + i \omega(r)]]\} \mathbf{e}^{[\lambda(r) + i \omega(r)]t}$$

$$\text{With } \lambda(r) = 0, \mathbf{P} = [\mathbf{v} + i \omega(r) \mathbf{r}] \mathbf{e}^{i \omega(r)t}$$

$$(\mathbf{P} \cdot \mathbf{P}) = [v^2 - \omega^2 r^2 + 2 i \omega r v] \mathbf{e}^{2 i \omega(r)t}$$

$$E = m (\mathbf{P} \cdot \mathbf{P})/2 = (m/2) [v^2 - \omega^2 r^2 + 2 i \omega r v] \mathbf{e}^{2 i \omega(r)t}$$

$$E = (m/2) [c^2 - c^2 + 2 i c^2] \mathbf{e}^{2 i \omega(r)t}$$

With  $\omega r = c$

$$E = (m/2) [2 i c^2 e^{2 i \omega (r) t}]$$

$$E = (m/2) | 2 i c^2 | | e^{2 i \omega (r) t} |$$

$$E = (m/2) (2 c^2) = mc^2$$

33 -  $E = mc^2$  in the Lab

$$\text{With } m = m(0) e^{-\lambda t} = m(0) [1 - \lambda t]$$

$$\text{And } m v^2/2 = m(0) v^2/2 [1 - \lambda t]$$

$$\text{And } m(0) v^2/2 - m v^2/2 = [m(0) v^2/2]; \lambda t = 1$$

34 - **Relativity theory:**  $m c^2 - m(0) c^2 = m(0) v^2/2$

### Momentum

$$S_x = \text{Visual location along the line of sight} = r [\sqrt{1 - (v/c)^2}]$$

$$P_x = v [\sqrt{1 - (v/c)^2}]; v = \text{constant}; P_x = d[S_x]/d t$$

$$\text{And } m P_x = m v [\sqrt{1 - (v/c)^2}] = m(0) v$$

$$\text{Mass Then } m = m(0) / [\sqrt{1 - (v/c)^2}]$$

$$\text{Also; } m = m(0) / [1 - 1/2(v/c)^2]$$

5- Energy

$$mc^2 = m(0) c^2 / [1 - 1/2(v/c)^2]$$

$$E = m(0) c^2; v = 0$$

$$\text{Also } m \approx m(0) [1 + 1/2(v/c)^2]$$

$$\text{Hence } m c^2 \approx m(0) c^2 + m v^2/2$$

The Illuiosn of length contraction and a confusion that two particles with light speed velocities  $c$  and  $c$  in absolute value and going in opposite directions then their relativie velocity is  $c$  lead to special theory of relativity with scientific value of less than two dollars in food stamps. Building on visual effects lead to Mysterious dark energy that consitute 8/9 of the Universe but not detectable! This Physics is for dummies and for dummies only. And this consitute a Death certificate of relativity theory. Novemebr 22, 1977. Joe Alexander Nahhas  
joenahhas1958@yahoo.com

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