

Time: A Scale and Not a Dimension

Abstract: Time as a dimension used in scientific calculation not only can lead to fires but to making fools out of the scientific community. Proof is attached.

Present time = present time

Present time = past time + [present time – past time]

A Measurement is done in present time of an event that had happened.

Equipment time = Event time + time delays

Measurement time = Event time + time delays

Physics Experiment = physics theory + time delays

Physics live = Event + corrections

Universal Mechanics = Mechanics + corrections

A measurement is an event taken in present time of an event that happened in the past.

We measure what is happening live in present time of what had happened in an event that already had happened.

Applied to Planetary motion or star-star motion

An event: $r(\theta, 0) = [a(1-\epsilon^2)/(1+\epsilon \cos \theta)]$ Planet motion **Event**

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

Perihelion advance **corrections:**

$$W''(\text{ob}) = (-720 \times 36526 \times 3600 / T) \{ [\sqrt{(1-\epsilon^2)} / (1-\epsilon)^2] [(v^* + v^\circ) / c]^2 \\ = 43.11'' \text{ of an arc per century for mercury}$$

Relativity theory concept of relative time between event and measurement created a silly universe when in fact it is a distortion of information that has a deterministic value. This silly concept of relative time as a dimension is an imposed non-scientific concept and it was imposed by Royals who for political reason backed bad physics and Physicists. The two most famous physicists are Newton and Einstein and both made the same mistake or relative time and both were supported by Royal England. Sir Isaac Newton was a mathematician and the head of England Royal society and his physics is as bad as Einstein and Einstein was unknown till Lord Eddington did his Rigging of Data to prove Light bending. Eddington did see Light Aberration and claimed light bending and the correct formula is not Einstein's.

Newton and Einstein made the same mistake:

Einstein Mistake

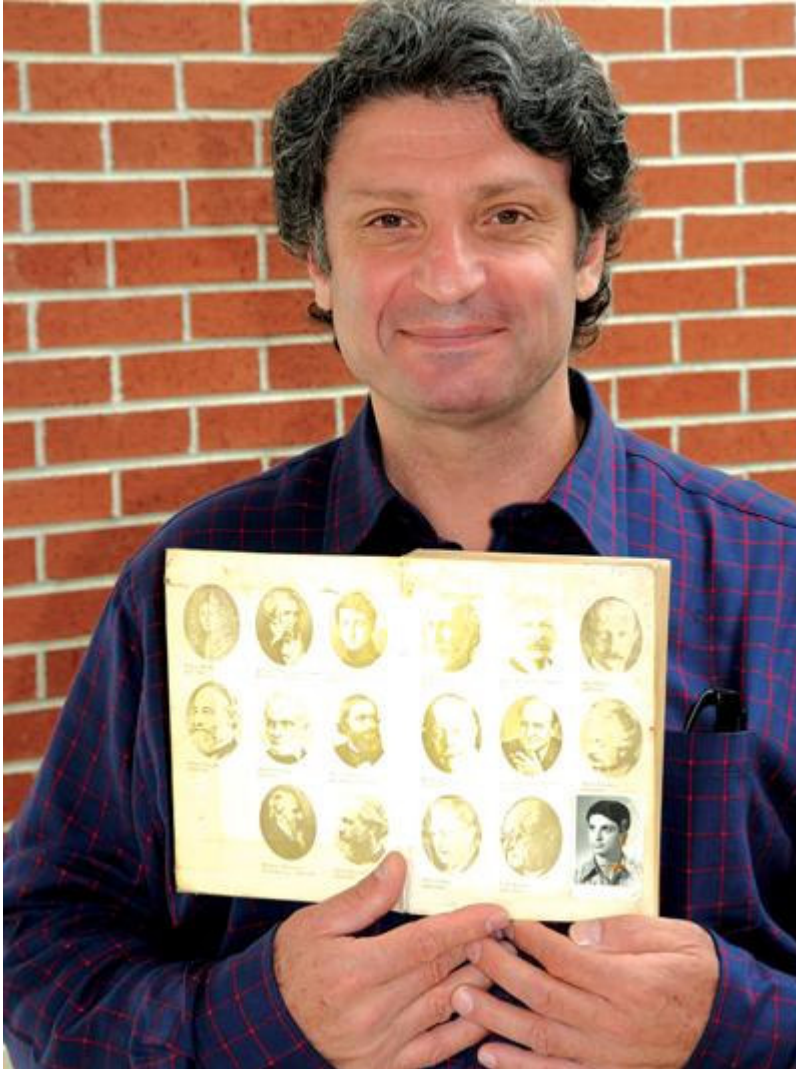
$$W''(\text{ob}) = (-720 \times 36526 \times 3600 / T) \{ [\sqrt{(1-\epsilon^2)}] / (1-\epsilon)^2 \} [(v^* + v^\circ) / c]^2$$

= 43.11" of an arc per century for mercury

Newton Mistake

$$W''(\text{ob}) = (-180 \times 36526 \times 3600 / T) m / M$$

= 43.044" of an arc per century for mercury



Joe Nahhas 1979 Picture stapled on my thermo book Whispering "I am coming up to get the party started"

It is not only Einstein is wrong but 350 years of wrong physics started by England Royal Society Head Master Sir Isaac Newton

Universal Mechanics Solution: For 350 years Physicists Astronomers and Mathematicians missed Kepler's time dependent equation introduced here and transformed Newton's equation into a time dependent Newton' equation and together these two equations combines classical mechanics and quantum mechanics in one universal mechanics equation and explains relativistic as corrections to the difference

between time dependent measurements and time independent measurements or visual effects or signal time delays effects.

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:

$$\begin{aligned} \mathbf{P} &= d \mathbf{S} / d t = m (d \mathbf{r} / d t) + (d m / d t) \mathbf{r} = \text{Total moment} \\ &= \text{change of location} + \text{change of mass} \\ &= m \mathbf{v} + m' \mathbf{r}; \mathbf{v} = \text{velocity} = d \mathbf{r} / d t; m' = \text{mass change rate} \end{aligned}$$

$$\begin{aligned} \mathbf{F} &= d \mathbf{P} / d t = d^2 \mathbf{S} / d t^2 = \text{Total force} \\ &= m (d^2 \mathbf{r} / d t^2) + 2(d m / d t) (d \mathbf{r} / d t) + (d^2 m / d t^2) \mathbf{r} \\ &= m \boldsymbol{\gamma} + 2m' \mathbf{v} + m'' \mathbf{r}; \boldsymbol{\gamma} = \text{acceleration}; m'' = \text{mass acceleration rate} \end{aligned}$$

In polar coordinates system

We Have $\mathbf{r} = r \mathbf{r}(\mathbf{1})$; $\mathbf{v} = r' \mathbf{r}(\mathbf{1}) + r \theta' \boldsymbol{\theta}(\mathbf{1})$; $\boldsymbol{\gamma} = (r'' - r\theta'^2)\mathbf{r}(\mathbf{1}) + (2r'\theta' + r\theta'')\boldsymbol{\theta}(\mathbf{1})$
 \mathbf{r} = location; \mathbf{v} = velocity; $\boldsymbol{\gamma}$ = acceleration

$$\begin{aligned} \mathbf{F} &= m \boldsymbol{\gamma} + 2m' \mathbf{v} + m'' \mathbf{r} \\ \mathbf{F} &= m [(r'' - r\theta'^2) \mathbf{r}(\mathbf{1}) + (2r'\theta' + r\theta'') \boldsymbol{\theta}(\mathbf{1})] + 2m'[r' \mathbf{r}(\mathbf{1}) + r \theta' \boldsymbol{\theta}(\mathbf{1})] + (m'' r) \mathbf{r}(\mathbf{1}) \\ &= [d^2(m r) / d t^2 - (m r) \theta'^2] \mathbf{r}(\mathbf{1}) + (1/mr) [d(m^2 r^2 \theta') / d t] \boldsymbol{\theta}(\mathbf{1}) \\ &= [-GmM/r^2] \mathbf{r}(\mathbf{1}) \text{ ----- Newton's Gravitational Law} \end{aligned}$$

Proof:

$$\begin{aligned} \text{First } \mathbf{r} &= r [\text{cosine } \theta \hat{\mathbf{i}} + \text{sine } \theta \hat{\mathbf{j}}] = r \mathbf{r}(\mathbf{1}) \\ \text{Define } \mathbf{r}(\mathbf{1}) &= \text{cosine } \theta \hat{\mathbf{i}} + \text{sine } \theta \hat{\mathbf{j}} \\ \text{Define } \mathbf{v} &= d \mathbf{r} / d t = r' \mathbf{r}(\mathbf{1}) + r d[\mathbf{r}(\mathbf{1})] / d t \\ &= r' \mathbf{r}(\mathbf{1}) + r \theta' [-\text{sine } \theta \hat{\mathbf{i}} + \text{cosine } \theta \hat{\mathbf{j}}] \\ &= r' \mathbf{r}(\mathbf{1}) + r \theta' \boldsymbol{\theta}(\mathbf{1}) \end{aligned}$$

$$\begin{aligned} \text{Define } \boldsymbol{\theta}(\mathbf{1}) &= -\text{sine } \theta \hat{\mathbf{i}} + \text{cosine } \theta \hat{\mathbf{j}}; \\ \text{And with } \mathbf{r}(\mathbf{1}) &= \text{cosine } \theta \hat{\mathbf{i}} + \text{sine } \theta \hat{\mathbf{j}} \end{aligned}$$

$$\begin{aligned} \text{Then } d[\boldsymbol{\theta}(\mathbf{1})] / d t &= \theta' [-\text{cosine } \theta \hat{\mathbf{i}} - \text{sine } \theta \hat{\mathbf{j}}] = -\theta' \mathbf{r}(\mathbf{1}) \\ \text{And } d[\mathbf{r}(\mathbf{1})] / d t &= \theta' [-\text{sine } \theta \hat{\mathbf{i}} + \text{cosine } \theta \hat{\mathbf{j}}] = \theta' \boldsymbol{\theta}(\mathbf{1}) \end{aligned}$$

$$\begin{aligned} \text{Define } \boldsymbol{\gamma} &= d [r' \mathbf{r}(\mathbf{1}) + r \theta' \boldsymbol{\theta}(\mathbf{1})] / d t \\ &= r'' \mathbf{r}(\mathbf{1}) + r' d[\mathbf{r}(\mathbf{1})] / d t + r' \theta' \mathbf{r}(\mathbf{1}) + r \theta'' \mathbf{r}(\mathbf{1}) + r \theta' d[\boldsymbol{\theta}(\mathbf{1})] / d t \\ \boldsymbol{\gamma} &= (r'' - r\theta'^2) \mathbf{r}(\mathbf{1}) + (2r'\theta' + r\theta'') \boldsymbol{\theta}(\mathbf{1}) \end{aligned}$$

$$\begin{aligned} \text{With } d^2(m r) / d t^2 - (m r) \theta'^2 &= -GmM/r^2 \quad \text{Newton's Gravitational Equation} \quad (1) \\ \text{And } d(m^2 r^2 \theta') / d t &= 0 \quad \text{Central force law} \quad (2) \end{aligned}$$

$$\begin{aligned} (2): d(m^2 r^2 \theta') / d t &= 0 \\ \text{Then } m^2 r^2 \theta' &= \text{constant} \\ &= H(0, 0) \\ &= m^2(0, 0) h(0, 0); h(0, 0) = r^2(0, 0) \theta'(0, 0) \end{aligned}$$

$$\begin{aligned}
&= m^2(0, 0) r^2(0, 0) \theta'(0, 0); h(\theta, 0) = [r^2(\theta, 0)] [\theta'(\theta, 0)] \\
&= [m^2(\theta, 0)] h(\theta, 0); h(\theta, 0) = [r^2(\theta, 0)] [\theta'(\theta, 0)] \\
&= [m^2(\theta, 0)] [r^2(\theta, 0)] [\theta'(\theta, 0)] \\
&= [m^2(\theta, t)] [r^2(\theta, t)] [\theta'(\theta, t)] \\
&= [m^2(\theta, 0) m^2(0, t)] [r^2(\theta, 0) r^2(0, t)] [\theta'(\theta, t)] \\
&= [m^2(\theta, 0) m^2(0, t)] [r^2(\theta, 0) r^2(0, t)] [\theta'(\theta, 0) \theta'(0, t)]
\end{aligned}$$

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 $2(m'/m) = 2[\lambda(m) + i\omega(m)]$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$\text{Let } mr = 1/u$$

$$\text{Then } d(mr)/dt = -u'/u^2 = -(1/u^2)(\theta') du/d\theta = (-\theta'/u^2) du/d\theta = -H du/d\theta$$

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

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

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

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

$$u = Gm^3(\theta, 0) M/H^2 + A \cos \theta = Gm(\theta, 0) M(\theta, 0)/h^2(\theta, 0)$$

$$\begin{aligned} \text{And } m r &= 1/u = 1/ [Gm (\theta, 0) M (\theta, 0)/ h (\theta, 0) + A \cos \theta] \\ &= [h^2/ Gm (\theta, 0) M (\theta, 0)]/ \{ 1 + [Ah^2/ Gm (\theta, 0) M (\theta, 0)] [\cos \theta] \} \\ &= [h^2/Gm (\theta, 0) M (\theta, 0)]/ (1 + \varepsilon \cos \theta) \end{aligned}$$

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

Dividing by $m (\theta, 0)$

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

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 $b = a \sqrt{1 - \varepsilon^2}$ and focus length $c = \varepsilon a$

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

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

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

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

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

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

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

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

$$\Delta \theta' (0, t) = \text{Real } \Delta \theta' (0, t) + \text{Imaginary } \Delta \theta (0, t)$$

$$\text{Real } \Delta \theta (0, t) = \theta'(0, 0) \{ 1 - 2 \sin^2 [\omega (m) t \omega (r) t] \}$$

$$\begin{aligned} \text{Let } W (\text{ob}) &= \Delta \theta' (0, t) (\text{observed}) = \text{Real } \Delta \theta (0, t) - \theta'(0, 0) \\ &= -2\theta'(0, 0) \sin^2 [\omega (m) t + \omega (r) t] \\ &= -2[2\pi [\sqrt{1-\varepsilon^2}]/T (1-\varepsilon)^2] \sin^2 [\omega (m) t + \omega (r) t] \\ \text{And } W (\text{ob}) &= -4\pi [\sqrt{1-\varepsilon^2}]/T (1-\varepsilon)^2 \sin^2 [\omega (m) t + \omega (r) t] \end{aligned}$$

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

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

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

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

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

Multiplication by $180/\pi$

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

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

Approximations II

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

$W^\circ(\text{ob}) = (-720 \times 36526 / T \text{days}) \{ [\sqrt{(1-\epsilon^2)} / (1-\epsilon)^2] \times [(v^\circ + v^*)/c]^2 \text{degrees/100 years}$
This is the equation that gives the correct apsidal motion rates -----III

The circumference of an ellipse: $2\pi a (1 - \epsilon^2/4 + 3/16(\epsilon^2)^2 - \dots) \approx 2\pi a (1 - \epsilon^2/4)$; $R = a (1 - \epsilon^2/4)$

Where $v(m) = \sqrt{[GM^2 / (m + M) a (1 - \epsilon^2/4)]}$
And $v(M) = \sqrt{[Gm^2 / (m + M) a (1 - \epsilon^2/4)]}$

1- Advance of Perihelion of mercury. [No spin factor] Because data are given with no spin factor

$G = 6.673 \times 10^{-11}$; $M = 2 \times 10^{30} \text{kg}$; $m = .32 \times 10^{24} \text{kg}$; $\epsilon = 0.206$; $T = 88 \text{days}$

And $c = 299792.458 \text{ km/sec}$; $a = 58.2 \text{ km/sec}$; $1 - \epsilon^2/4 = 0.989391$

With $v^\circ = 2 \text{ meters/sec}$

And $v^* = \sqrt{[GM/a (1 - \epsilon^2/4)]} = 48.14 \text{ km/sec}$

Calculations yields: $v = v^* + v^\circ = 48.14 \text{ km/sec}$ (mercury)

And $[\sqrt{(1 - \epsilon^2)} / (1 - \epsilon)^2] = 1.552$

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

$W''(\text{ob}) = (-720 \times 36526 \times 3600 / 88) \times (1.552) (48.14 / 299792)^2 = 43.0''/\text{century}$

This is the rate of for the advance of perihelion of planet mercury explained as "apparent" without the use of fictional forces or fictional universe of space-time confusions of physics of relativity.