Abstract: Newton proposed $F = -\frac{GmM}{r^2}$ as gravitational law.
In 1801 Johann Georg Van Soldner was the first person to calculate the gravitational bending of light using Newtonian Mechanics and he got:

Johann Georg Van Soldner $\varsigma$ (Johann) $= 2 \left\{ \cos^{-1} \left( \frac{v^2}{c^2 + v^2} \right) \right\} - \pi \approx 2 \left( \frac{v}{c} \right)^2$

With $v^2 = \frac{GM}{R}$ where $G$ = gravitational constant $= 6.673 \times 10^{-11}$; $C = 3 \times 10^8$ m/sec
And $M$ = Sun mass $= 2 \times 10^{30}$ kg; $R$ = sun radius $= 0.695 \times 10^9$ m; $v = 437.89$

Einstein said if make-believe time travel and new forces added:
Then: \( \varsigma (\text{Einstein}) = 4 \left( \frac{v}{c} \right)^2; \ \varsigma (\text{Johann}) = 0.8789 \text{ arc sec}; \ \varsigma (\text{Einstein}) = 2(0.8789) \)

Johann Georg Van Soldner derivation was incomplete and when completed and approximated it produces Einstein’s formula without Einstein’s space–time fiction and as light aberration and not light bending.

Proof:
Johann Georg Van Soldner wrong derivation of angle of light aberration around the Sun

With \( \frac{d^2 r}{dt^2} - r \frac{d^2 \theta}{dt^2} = -\frac{GM}{r^2} \) Newton’s Gravitational equation (1)
And \( \frac{d}{dt} (r^2 \theta') = 0 \) Kepler’s force law (2)
Assuming mass \( m = \text{constant} \)

Proof:
With (2): \( \frac{d}{dt} (r^2 \theta') = 0 \)
Then \( r^2 \theta' = \text{constant} = h \)
Differentiate with respect to time

Then \( 2rr' \theta' + r^2 \theta'' = 0 \)
Divide by \( r^2 \theta' \)
Then \( 2(r'/r) + \theta''/\theta' = 0 \)
And \( 2(r'/r) = - \left( \frac{\theta''}{\theta'} \right) = 2[\lambda (r) + i \omega (r)] \)
And \( 2(r'/r) = 2[\lambda (r) + i \omega (r)] \)
And \( \left( \frac{\theta''}{\theta'} \right) = - 2[\lambda (r) + i \omega (r)] \)
Solving for \( r = r (\theta, t) = r (\theta, 0) r (0, t) = r (\theta, 0) e^{\left[ \lambda (r) + i \omega (r) \right] t} \)
With \( r (0, t) = e^{\left[ \lambda (r) + i \omega (r) \right] t} \)
Then \( \theta'(\theta, t) = \left[ \frac{h}{r^2 (\theta, 0)} \right] e^{2[\lambda (r) + i \omega (r)] t} \)
And, \( \theta'(\theta, t) = \theta' (\theta, 0) \theta' (0, t) \)
And \( \theta' (0, t) = e^{2[\lambda (r) + i \omega (r)] t} \)
Also \( \theta'(\theta, 0) = \left[ \frac{h}{r^2 (\theta, 0)} \right] \)
And \( \theta'(0, 0) = \left[ \frac{h}{r^2 (0, 0)} \right] \)

With (1): \( \frac{d^2 r}{dt^2} - r \frac{d^2 \theta}{dt^2} = -\frac{GM}{r^2} \)
Let \( r = 1/u \)
Then \( \frac{d}{dt} \frac{r}{u} = -u'^2 = 1-u^2 \) (\( \theta' \)) \( \frac{du}{d \theta} = \left( - \frac{\theta'}{u^2} \right) \frac{du}{d \theta} = - h \frac{du}{d \theta} \)
And \( \frac{d^2 r}{dt^2} = - h^2 \frac{d^2 u}{d \theta^2} = - h^2 \left( \frac{d^2 u}{d \theta^2} \right) \)
And \(- hu^2 \left( \frac{d^2 u}{d \theta^2} \right) - (1/u) (hu^2)^2 = - G M u^2 \)
\( \left[ \frac{d^2 u}{d \theta^2} + u = G M/ h^2 \right] \)
And \( u = G M/ h^2 + A \cos \theta \)

And \( du/ d \theta = 0 = - A \sin \theta; \ \theta = 0 \)
Then \( u (0) = 1/ r (0) = GM/h^2 + A; h = RC \)
\( C = \text{light velocity of 300,000 km/sec; Then A = 1/R - GM/ (RC)^2} \)
\( \text{And u = G M/ h^2 + A \cos \theta = GM/ (RC)^2 + [1/R - GM/ (RC)^2] \cos \theta} \)
And \( r = \frac{1}{u} = 1/\{GM/ (RC)^2 + [1/R - GM/ (RC)^2]\} \cos \theta \)
If \( r \to \infty \); \( GM/ (RC)^2 + [1/R - GM/ (RC)^2]\) \cos \theta = 0
Divide by \( GM/ (RC)^2 \)
Then \( 1 + \frac{R^2C^2/ GM R - 1}{C^2/(GM/ R) - 1} \) \cos \theta = 0
And \( \cos \theta = -1/\left[\frac{C^2}{GM/ R} - 1\right] \)
Or \( \cos \theta = 1/\left[1 - (C^2/V^2)\right] \); \( GM/R = V^2 \)
Or \( \cos \theta = \frac{v^2}{v^2 - c^2} \)
And \( \theta = \cos^{-1}\left[\frac{v^2}{v^2 - c^2}\right] \)
\( \zeta \) (Johann) = \( 2\{\cos^{-1}\left[\frac{v^2}{-c^2 + v^2}\right]\} - \pi \approx 2\left[\frac{\pi/2 + (v/c)^2}{2}\right] - \pi = 2 \left(v/c\right)^2 \); \( v/c \ll 1 \)
Einstein invented many things to come up with double the amounts:
Or, \( \zeta \) (Einstein) = \( 4 \left(v/c\right)^2 \)
Here is Johann Georg Van Soldner 1801 Historical mistake
We have \( u(\theta) = GM/ h^2 + A \cos \theta \)
And \( r(\theta, t) = r(\theta, 0) r(0, t) = r(\theta, 0) e^{\left\{\lambda(r) + i \omega(r)\right\} t} \)
And \( r(\theta, 0) = 1/\left\{\frac{GM}{h^2 + A \cos \theta}\right\} \)
Or, \( r(\theta, 0) = (h^2/GM)/\left[1 + (h^2/GM) A \cos \theta\right] \)
Or, \( r(\theta, 0) = \frac{(h^2/GM)}{[1 + \varepsilon \cos \theta]} \)

Real time orbit: \( r(\theta, t) = \left[a \left(1- \varepsilon^2\right) / (1+\varepsilon \cos \theta) \right] e^{i(\omega(t)+i\lambda(r))t} \)

This equation is real time Universal mechanics solution

This: \( r(\theta, t) = [a \left(1- \varepsilon^2\right) / (1+\varepsilon \cos \theta)] e^{i(\omega(t)+i\lambda(r))t} \) \hspace{1cm} I

It is the math formula that matches a physical experiment

If time is frozen that is \( t = 0 \)
Then \( r(\theta, t) = [a \left(1- \varepsilon^2\right) / (1+\varepsilon \cos \theta)] \) we get the classical or event time solution \hspace{1cm} II

Relativistic is the difference between I and II

And it is the visual illusion between motion II and Visual motion I

The difference between an event and its measurement in real time

With \( \theta' (\theta, t) = \left[h / r^2 (\theta, 0) \right] e^{2i(\omega(t)+i\lambda(r))t} \)

With \( \theta'' / \theta' = -2[\lambda(r) + i\omega(r)] \)

Then \( \theta'' (\theta, t) = -2[\lambda(r) + i\omega(r)] \left[h / r^2 (\theta, 0) \right] \) \hspace{1cm} e^{2i(\omega(t)+i\lambda(r))t} \)

With \( \lambda(r) = 0 \)

Then \( \theta'' (\theta, t) = -2i\omega(r) \left[h / r^2 (\theta, 0) \right] \) \hspace{1cm} e^{2i\omega(r)t} \)

Or, \( \theta'' (\theta, t) = -2i\omega(r) \left[h / r^2 (\theta, 0) \right] \) \hspace{1cm} \cos 2\omega(r)t + i\sin 2\omega(r)t \)

The real part or along the line of sight

Is Real \( \theta'' (\theta, t) = 2\omega(r) \left[h / r^2 (\theta, 0) \right] \) \hspace{1cm} \sin 2\omega(r)t \)

Or, Real \( \theta'' (\theta, t) = 2t\omega(r) \left[h / r^2 (\theta, 0) \right] \) \hspace{1cm} \sin 2\omega(r)t \)

Or, Real \( \theta'' (\theta, t) / \left[h / r^2 (\theta, 0) \right] = 2t\omega(r) \) \hspace{1cm} \sin 2\omega(r)t \)

At \( t = T; \) light aberration angle in real time is confused for light bending. With \( \omega T = \arctan (v/c) \)

Then \( \psi = \) visual illusion angle = \( \theta'' (\theta, T) / \left[h / T^2 (\theta, 0) \right] \)

Or, \( \psi = 2T\omega(r) \) \hspace{1cm} \sin 2\omega(r)T \)

Johann Georg Van Soldner 1801 historical mistake

Is: \( \psi = \left[2 \arctan (v/c) \right] \sin \left[2 \arctan (v/c) \right] \)

With \( (v/c) << 1; \) \( 2 \arctan (v/c) \approx 2(v/c) \)
And \( \sin 2 \arctan (v/c) \approx \sin 2(v/c) \approx 2(v/c) \)

And \( \psi = \left[2 \arctan (v/c) \right] \sin \left[2 \arctan (v/c) \right] \)
\approx \left[2(v/c) \right] \left[2(v/c) \right] \)
Or $\psi \approx 4 \, (v/c)^2$ radians
Or, $\psi \approx 4 \, (v/c)^2 \times (180/\pi)$ degrees

Or, $\psi \approx 4 \, (v/c)^2 \times (180/\pi) \times 3600$ seconds

With $v^2 = GM/R$
Then $\psi \approx 4 \, GM/R \, c^2 \times (180/\pi) \times 3600$ seconds

Einstein with the help of others rigged eternity to come up with $4 \, (v/c)^2$ and not $2 \, (v/c)^2$ to justify experimental illusions or $2[2(v/c)^2]$

$\Psi = 7200 \, [\arctan (437.89 / 300,000)] \, \sin 2 \, [\arctan (437.89/300,000)]$
$\quad = 1.757855865$ arc second

This multiplication by 2 is the difference between classical mechanics and relativity like the energy definition of classical mechanics $E = mc^2/2$ and the 2 multiplication of $E = mc^2/2$, $E = 2 [mc^2/2] = mc^2$

1- The illusion of length contraction:
Length contraction is just a visual effect of projected light aberration and it is an "apparent" visual effect and not real

An object located at $r$ --------- light sensing ------------------ measured as $S = r \, \exp [i \, \omega \, t]$
With $\omega \, t = \arctan (v/c)$; $\tan (v/c) = \text{light aberrations angle} = \omega \, t$
$S = r \, \exp [i \, \omega \, t] \text{ caused by light aberrations visual effects as follows:}$

$\exp [i \, \omega \, t] = [\cos \omega \, t + i \, \sin \omega \, t]$; From $S = r \, \exp [i \, \omega \, t]$
It changes to: $S = r \{\sqrt{1- \sin^2 \arctan (v/c)} - i \, \sin \, \arctan (v/c)\}$
$\quad = r \{\sqrt{1- (v/c)^2} - i \, (v/c)\}; \, v/c << 1$
$\quad = S \, x + i \, S \, y$
Where $S \, x = \sqrt{1- \sin^2 \arctan (v/c)}$; And $S \, y = \cosine \arctan (v/c)$
With $v/c << 1$ then; Where $S \, x = \sqrt{1- \sin^2 \, \arctan (v/c)}$; And $S \, y = \cosine \arctan (v/c)$
In absolute value $S = r$
Along the line of measurement: $S \, x = \sqrt{1- \sin^2 \arctan (v/c)} \approx r \sqrt{1-(v/c)^2}$; $v/c << 1$
This the equation for length contraction of Lorentz's used in Einstein's theories
But it is the light aberrations visual effects and it is "apparent and not real"
2 - **Constant velocity of light leading to Time Dilations**  
**Projected light aberrations**  
\[ S \times = r \cos \omega t \]

Hypotenuse = \[ S \times = c t \times \sqrt{1-\sin^2 \arctan(v/c)} \]
\[ S \times \approx c t \sqrt{1-(v/c)^2} \]; **from constant velocity of light**
and c is constant in all reference frames
Where \( t = \) local self time; \( t \times = \) time by observer

\( t \times = t \sqrt{1-(v/c)^2} \); and
\( t = \{1/\sqrt{1-(v/c)^2}\} \times \) absolute math

These are time dilatation equations given by Einstein’s special relativity theory.

\( t \times' = t' \sqrt{1-(v'/c)^2} \); and
\( t' = \{1/\sqrt{1-(v'/c)^2}\} \times' \) absolute math

Two observers observing the same thing the time dilations are

Then, \( t \times = t \sqrt{1-(v/c)^2} \); \( t = \{1/\sqrt{1-(v/c)^2}\} \times \) absolute math; Lab purposes
And, \( t \times' = t \sqrt{1-(v'/c)^2} \); \( t' = \{1/\sqrt{1-(v'/c)^2}\} \times' \) absolute math; Lab purposes

However; two observers looking at each other
\( S \ (A) = r \exp [ i \omega t] \)
\( S \ (B) = r \exp [- i \omega t] \)
\( S \times (A) = S \times = c t \times \approx c t \times' \sqrt{1-(v/c)^2} \)
\( S \times (B) = S \times = c t \times' \approx c t \times \sqrt{1-(v/c)^2} \)

And \( t \times \approx t \times' \sqrt{1-(v/c)^2} \)
And \( t \times' \approx t \times \sqrt{1-(v/c)^2} \)

That is why there no twin Paradox except on science fictions books because it is all about aberrations and nothing real.

3 – **Momentum**

\( S \times = \) Visual location along the line of sight = \( r \sqrt{1-(v/c)^2} \)
\( P \times = v \sqrt{1-(v/c)^2} \); \( v = \)constant; \( P \times = d [S \times]/d t \)
And \( m P \times = m v \sqrt{1-(v/c)^2} = m (0) v \)

4 – **Mass** Then \( m = m (0) / \sqrt{1-(v/c)^2} \)
Also; \( m = m(0) / \left[1-1/2(v/c)^2\right] \)

5- Energy

\( mc^2 = m(0) c^2 / \left[1-1/2(v/c)^2\right] \)

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

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

Hence \( m c^2 \approx m(0) c^2 + m v^2/2 \)

I am not only saying Lorentz Einstein and the 100,000 dead physicists and the 100,000 living physicists are wrong I am adding that the collective value of relativity theory special and general and all of more than three dimensions based physics is 1/2 rotten onion stinking onion.

Space – time stupidity is \( E = mc^2 \)

This is how \( E = mc^2/2 \) ended being \( E = mc^2 \)

\( E = mc^2/2 \) and

\( E = mc^2 \) is the visual illusion of \( E = mc^2/2 \)

**Visual \( E = mc^2 \)**

**Proof:** \( E \) (total) = \( T \) (kinetic) + \( U \) (potential) = \( T + [U = 0] = [T = 0] + U \)

With \( E = T = mv^2/2 = mc^2/2; v = c \)

With \( r = r(0) \) \( \mathbb{E}^{[\lambda(r) + i \omega(r)]} t \)

\( P = \{[v(0) + r(0) [\lambda(r) + i \omega(r)]]} \mathbb{E}^{[\lambda(r) + i \omega(r)]} t \)

With \( \lambda(r) = 0, P = [v(0) + i \omega(r) r(0)] \mathbb{E}^{i \omega(r)} t \)

\( (P, P) = [v^2(0) - \omega^2 r^2(0) + 2 i \omega r(0) v(0)] \mathbb{E}^{2 i \omega(r)} t \)

\( E = m(P, P)/2 = (m/2) [v^2(0) - \omega^2 r^2(0) + 2 i \omega r(0) v(0)] \mathbb{E}^{2 i \omega(r)} t \)

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

With \( \omega r(0) = c \)

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

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

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

\( E = mc^2 \)

In experiments we can only find 1/9 of the energy that the formulas say there is energy. Scientists are wasting their efforts for all of past century on trying to find the other 8/9 energy the formulas says they exist but we can not find.

How did that happen?
We have $E = \frac{mc^2}{2}$ and in nuclear reaction they say when mass is changed to energy then change in energy $\Delta E = mc^2$ and total energy is $= E + \Delta E = \frac{mc^2}{2} + mc^2 = 3mc^2/2$ and in experiment we can only find $E = \frac{mc^2}{2}$ and the other $2 \frac{mc^2}{2} = 2E$ are missing. With $E_{\text{total}} = 3 (mc^2/2) = 3 E = E_{\text{total}}/3$ can be found and $2E = 2\frac{E_{\text{total}}}{3}$
Or $E_{\text{total}}/3$ found
And $2 E_{\text{total}}/ 3$ missing
Then scientists added that also $(1/3)$ of energy that we found might have $2/3$ missing too.
Then $2/3 (1/3) = 2/9$ missing of energy that we found
And $2/3 = 6/9$ already missing and the total missing is $6/9 + 2/9 = 8/9$ missing wow!

Wow! Let us find $8/9$ missing energy and get rich and for a century scientists are making all others day dream of $8/9$ dark energy missing and the only things that have had happened is scientists got money and humanity received “University” stupidity called space – time.

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