

Many thanks! I will write this up as a note, the value of 42.98 arc seconds per earth century is below the observed value of 43.11 arc seconds per earth century. I assume that Maxima was used with my data and method to get 42.98 arc seconds per earth century. I will go back over the calculation again with the calculator. The factor of 2 pi is needed because the secular term used by Marion and Thornton is:

$$1/r = (1/\alpha) (1 + \epsilon \cos((1-x)\phi))$$

(Eq. (7.83) of Marion and Thornton). An increase of argument by 2 pi means that

$$\phi(1-x) = 2\pi,$$

so

$$\phi = 2\pi / (1-x) \sim 2\pi (1+x)$$

The perihelion is displaced by $2\pi x$ per revolution of 2π , where

$$x = 3MG / \alpha$$

Here M is the mass of the sun and alpha the half right latitude of Mercury. The apparent agreement with the experimental data is a mirage for many reasons:

- 1) As you have shown, this method gives a wildly incorrect orbit when tested with large M.
- 2) There are eighty two other refutations of EGR in the UFT series, many others by other authors.
- 3) There are experimental uncertainties in the mass of the sun, the measurement of the Mercury year, the value of G, and the measurement of the Mercury half right latitude.
- 4) Miles Mathis has argued that corrections for the precessions caused by the planets are made with Newtonian theory. They should have been made with relativistic theory.
- 5) In previous UFT work the method used by Marion and Thornton was found to be faulty.

To put things beyond any reasonable (i.e. scientific) doubt, it would be very interesting to increase M to the mass at the centre of the Milky Way as suggested in my last e mail, and then to as close to infinity as possible without floating point overflow on the computer. For very large M, the method used by Marion and Thornton is completely inapplicable, because that method relies on $x \ll 1$.

To: EMyrone@aol.com
Sent: 17/10/2017 14:44:59 GMT Daylight Time
Subj: Re: Discussion of 391(2), perihelion precession of Mercury

I had a typo in my calculation, now the velocities are consistent. The precise value from the Einstein formula according to your calculation is

42.98 arc sec per earth century

I do not understand why the value of delta phi has to be multiplied by 2 pi. I thought that this is the angular increase per revolution so it is per 2 pi. Is the value from $3MG / (c^2 \alpha)$ meant as a differential value

$$\Delta\phi / \phi = 3MG / (c^2 \alpha)$$

?

Horst

Am 17.10.2017 um 11:35 schrieb EMyrone@aol.com:

This is a very interesting result once again. The data on the internet give, for Mercury

Mass of sun M = 1.989 ten power 30 kg

G = 6.67408 ten power - 11 m cubed per kilogram per square

second

c = 2.9979792 ten power 8 m per second

alpha = 5.7909050 ten power 10 m