

Re: An astronomer's view of mechanics

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- *From:* Quadibloc <jsavard@xxxxxxxxxx>
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oriel36 wrote:

Technically impossible, trying to fit the axial and orbital motion cycles into a constellational system of 3 years of 365 days and 1 year of 366 days is impossible, that it has all the traits of a 'predictive' clockwork system would normally have somebody wide-eyed with disbelief but I have yet to see one person grasp the easy to follow reasoning. If a star returns constantly to a location and it requires an additional leap day every 4th year it should follow that you are not dealing with a concept of 365 days 5 hours 49 minutes but rather the calendrical convenience of 365/366 days.

I'm afraid I don't understand that at all.

$1/(23 \text{ hours } 56 \text{ minutes } 4 \text{ seconds}) + 1/(365 \text{ days } 5 \text{ hours } 49 \text{ minutes}) = 1/(24 \text{ hours})$.

Because the Earth's axial rotation is not in the same plane as the Ecliptic, and because the Earth's orbit is elliptical, 24 hours is only the average length of a solar day, and we have the Equation of Time, even though both "23 hours 56 minutes 4 seconds" and "365 days 5 hours 49 minutes" are "exact" – that is, uniform except for minute discrepancies, while the Equation of Time is a much larger recurrent difference between the actual solar day and the average solar day.

This uses the actual rotation of the Earth and the actual revolution of the Earth as sources of angular velocity.

Because we are adding angular velocities, there is NO need in that equation to think of chopping up the year into whole days. We do that as a calendrical convenience, but that has NOTHING to do with adding rates of angular movement.

Your claim that it "obviously" has to involve the discontinuity of the leap year, and is therefore invalid, does not appear to rest on any reason that I can see whatever.

John Savard

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