

Re: Good Article on Orbital Dynamics

Re: Good Article on Orbital Dynamics

Source: <http://sci.tech-archive.net/Archive/sci.astro/2008-02/msg00030.html>

- *From:* Agent Smith <agent-smith@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Tue, 05 Feb 2008 23:02:16 GMT
-

oriel36 <geraldkelleher@xxxxxxxx> wrote in
news:07035d8e-5d67-4bb0-a91d-d644ec9a73dc@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx:

On Feb 5, 8:02 pm, Agent Smith <agent-sm...@two-blocks-on-your-left.com> wrote:

oriel36 <geraldkelle...@xxxxxxxx> wrote
innews:7bafd921-e4c8-4690-b715-04

90d08dcfc3@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx:

On 4 Feb, 22:03, Agent Smith
<agent-sm...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

oriel36 <geraldkelle...@xxxxxxxx> wrote
innews:1230dc2a-5334-4123-9b54-8a

2dabc01...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx:

On 4 Feb, 01:12, Agent
Smith
<agent-sm...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote:

It's from
last month's
issue of
American

Re: Good Article on Orbital Dynamics

Scientist.

<http://tinyurl.com/2w4h5a>

Toward the
end of the
article, that
author says
that the
configuration
of
extrasolar
planets
around the
star 55
Cancri
has a region
of stable
orbits

that will
allows a
planet to
exist in the
habitable
zone around
it's sun,
where the
temperature
is just right
for liquid
water
to exist.
Since the
whole point
of the
article is
that solar
systems are
"full,"
ie. that all
stable orbits
are typically
inhabited,
the author

Re: Good Article on Orbital Dynamics

is clearly
suggesting
that the
chances are
quite good
of
actually
finding a
planet in
that region,
eventually.

The first sentence in that
article was certainly not
written by
anyone who knows Kepler's
work or indeed that of the
pre-Copernican or
heliocentric astronomers –

"In 1605, Johannes Kepler
discovered that the orbits of
the
planets are ellipses rather
than combinations of
circles, as
astronomers had assumed
since antiquity."

Care to correct it ?.

The geocentric astronomers
posited the Equant for the
Keplerian
refinement whereas
epicycles were employed to
resolve the main
Copernican argument based
on retrogrades –

Re: Good Article on Orbital Dynamics

"Copernicus, by attributing a single annual motion to the earth, entirely rids the planets of these extremely intricate coils [spirals], leading the individual planets into their respective orbits [orbits], quite bare and very nearly circular. In the period of time shown in the diagram, Mars traverses one and the same orbit as many times as the 'garlands' [corollas] you see looped towards the centre, with one extra, making nine times, while at the same time the Earth repeats its circle sixteen times " Kepler referi

ng

to diagra

m

on page 86 –

http://mitpress.mit.edu/journals/pdf/POSC_13_1_74_0.pdf

It is amazing that there is an overlooked orbital component to the Earth's motion, which can visibly be extracted from the motions of the Equatorial rings of Uranus yet nobody wants to touch it –

Re: Good Article on Orbital Dynamics

http://astro.berkeley.edu/~imke/Infrared/UranusAo/ur_time_2001

2005.jpg

The change in orientation of the rings with respect to the central Sun is 100 % certain along with the nature of the change in accordance with Keplerian precepts. Before you ponder other solar systems perhaps it is much better to adding the major orbital component to our own planet and specifically replacing the pseudo-dynamic of variable axial tilt with the explicitly observational orbital change.

The moon librates on a much shorter period than that.

<http://www.youtube.com/watch?v=3ryt9fBOBE>–Hide quoted text –

– Show quoted text –

The new orbital component based on referencing orbital motion against the Sun is too magnificent a motion to ignore.yet you have no feel for it –

Re: Good Article on Orbital Dynamics

<http://space.newscientist.com/data/images/ns/cms/dn12529/dn12529-1>

800.

jpg

The change in the Equatorial rings with respect to the Sun is in accordance with Keplerian orbital geometry hence it is quite separate to axial rotation/orientation. The application of the same principle to the Earth's orbital motion leads to a simple working principle that a location will turn through 360 degrees with respect to the Sun over the course of an annual orbit.

I would have expected an MIT engineer to interpret the images correctly but judging from the youtube sequence you responded with, obviously you have not. The addition of a new orbital component is a major departure

from the pseudo-dynamic of variable axial/Equatorial inclination and unfortunately, for whatever reasons, nobody in the entire newsgroups are up to the challenge even with sequential imaging of another planet allied with graphics demonstrates its existence explicitly, not even an inference required, but a clear and unambiguous observation.

The problem is that, with an 84 year period, Uranus moves so slowly along the course of its orbit that the data comes in at a trickle. There is a slight change oscillation of the rings' inclination, with a one year period, due to the motion of the earth, but this is not the 360 degree rotation you're talking about.

What !, do you wish me to treat you like a child and show you graphics of how the orbital orientation changes through 360 degrees with respect to the Sun as an orbital component –

Re: Good Article on Orbital Dynamics

http://physics.uoregon.edu/~jimbrau/BrauImNew/Chap13/FG13_06.jpg

Or do you want to be treated like a man and discuss how the change in the orbital orientation denoted by the orbital longitude beacon of the Equatorial rings is in accordance with Keplerian orbital geometry –

http://asymptotia.com/wp-images/2007/08/uranus_rings.jpg

To make a movie out of just five frames, gathered at a rate of one per year, you have to kludge the data pretty bad, which I expect would cause such a film to lose most of its charm. However, if you think that the project can be done, I urge you to do it, if for no other reason than to see what happens. There's a virtually infinite amount of available work, appropriate for amateur astronomers, and having found your very personal, favorite project, nobody else can ever respect it as profoundly as you do.

An actual motion a person can see, it is even plainer than axial rotation and look at that ill-considered and dull mess you just wrote. I am not trying to convince you of anything, the sequence of images is enough as far as I know but it may highlight how little you know about orbital motion and especially that gorgeous motion which is responsible for variations in daylight/darkness North and South of the Equator and variations in the noon cycle.

I do not need to tell you how small you look, you manage to do it all on your own, may be cowardice, may be incapacity, the fact is that you do not see the motion apart from axial rotation/orientation and that is that.

Even if you have a day job, so severely restricting the amount of work you can do, that it will take your entire lifetime to complete the task, I still encourage you to do it. Depending on how old you are, at a rate

of one frame per year, you should still get several new frames during the rest of your time on earth. You can't finish it, but by the time you're gone, you may have taken a healthy chunk out of the project, and it is moving so slowly that you'll still have plenty of time to invent at least a few more tasks that nobody's ever thought of, for

Re: Good Article on Orbital Dynamics

instance, calculating when to take the snapshot so that the effects of the earth's orbit are reduced.

How great my astronomical ancestors were to infer the heliocentric arrangement including the lengthy periods of Jupiter and Saturn without having to prove heliocentricity using full annual orbital cycles .-

Now what is said here of Jupiter is to be understood of Saturn and Mars also. In Saturn these retrogressions are somewhat more frequent than in Jupiter, because its motion is slower than Jupiter's, so that the Earth overtakes it in a shorter time. In Mars they are rarer, its motion being faster than that of Jupiter, so that the Earth spends more time in catching up with it. Next, as to Venus and Mercury, whose circles are included within that of the Earth, stoppings and retrograde motions appear in them also, due not to any motion that really exists in them, but to the annual motion of the Earth. This is acutely demonstrated by Copernicus . . . - 1632, Dialogue Concerning the Two Chief World Systems

Would you please post a link to the parent page, from which those photos are accessed, as well as its parent, and as far up the chain as you need to go to get all details of all the Uranian photos at that site, including especially the camera information. I'm assuming that it was taken with the Hubble, but these days, you can't be sure.

You are childish, a simple google image search would give you what you want

I'm not going to deny that those aren't excellent pictures, but I really don't understand what you mean by "the addition of a new orbital component." It sounds like you're using the language of astrology, but I can't be sure.

Any competent high school physics student should be able to infer that the tilt of the Uranian rings will go through a 360 degree cycle, as Uranus orbits the sun.

Tilting is an action, a dynamic. The axial orientation of Uranus is due to axial rotation and nothing further can be said other than it points

Re: Good Article on Orbital Dynamics

in one fixed direction in space just as the Earth does. Axial rotation cannot change the orientation of the axis/Equator with respect to the Sun so you can set aside the old reliance on variable axial/equatorial inclination.

You can actually see how axial rotation does nothing other than keep Uranus pointing in one direction in space, I will even show you the childish graphic you require –

http://physics.uoregon.edu/~jimbrau/BrauImNew/Chap13/FG13_06.jpg

The change in the orientation of the rings does not look dramatic in the graphic but seen using powerful and sequential imaging it certainly is. If all you can manage is a 'tilting' Uranus then good for you but the easier answer is to separate orbital motion and treat the change in orientation of a location to the Sun as a separate issue.

I have to treat you like a high school pupil and ask you a simple question, Over the course of an annual orbit does a location turn slowly through 360 degrees with respect to the Sun ?. when you come to the only possible conclusion be sure to teach others that there beloved celestial sphere arc drawn from the central Sun through the Earth to constellational geometry does not work –

<http://www.pfm.howard.edu/astronomy/Chaisson/AT401/IMAGES/AACHCIT0.JPG>

The libration of the moon, however, was

completely new to me, and it totally blew my mind to see it. I'm not completely certain, but I suspect that it is the up and down tilt of the moon, as seen from earth, as the moon rises and falls along the inclination of its orbit. Thus that is also "the addition of a new orbital element."

Perhaps you're not necessarily infatuated by *any* "new orbital element," but just by the ones exhibited by the two most remote gas giants.– Hide quoted text –

– Show quoted text –

TNewton hung his ballistic agenda on a framework created by Flamsteed which keeps a location facing noon every 24 hours exactly in order to justify axial and orbital motion to a star in 23 hours 56 minutes 04 seconds –

Re: Good Article on Orbital Dynamics

[http://upload.wikimedia.org/wikipedia/commons/1/1d/Tiempo_sid%C3%](http://upload.wikimedia.org/wikipedia/commons/1/1d/Tiempo_sid%C3%en.png)

A9reo.

en.png

That reasoning belongs to mindless brutes with no feel for astronomical accomplishments. You do not like the way a location slowly turns through 360 degrees with respect to the Sun ,seperate to axial rotation,then good for you.At least you now know how the geocentrists felt when confronted with the original Copernican reasoning,in fact I am being harsh on the geocentrists diue to the strological framework and the reasoning behind you dismal approach.

How about those links I asked for?

.