THE UNPREDICTABILITY OF THE ROTATION SHIFT OF EARTH'S ROTATION AXIS

Update 2024 Introduction to problem stating

home

Some years ago sufficient physics was understood to point out the likelihood that the shift of the rotation axis was a possibility. See below *Earth axis precession shift and as introduction Poincaré Comment : Both these articles are earlier studies stating the problem. There is absolutely no question that after proving experimentally the existence of the weak gravity condition that the shift of the rotation axis cannot happen. The only speculation is the imminence of the shift. Awaiting near future*

However, over the following years a complete understanding of how the universe and gravity behaved under the weak gravity condition or the macroscopic entanglement driven by the mediating medium of ultra fast and light dark matter. What was overlooked so far? Actually the understanding of the complete dynamic gravitation generation. Although the physics model of the sunwheel drive included correctly that inertia of the macro mass plays an important role in the dynamics of gravity generation by the medium. Namely the dynamic gravity exchange is a fast process of 'mode of exchange' for the dark matter rigid rotors of the medium leaving the overall inertia of atoms untouched, a nearly dissipation free process. Fast exchange of coherent groups of atoms is possible due to Sacharov's law of the mediating medium.

The point being that the inertia shift in the radius of the sun is to be distinct from the equivalent radius generated by the fast dynamics of the medium. Actually a delay or an exchange gap can be generated. Intrinsically it is nearly impossible to predict when the inertia precession shift for the rotation axis of Earth happens. That said the inertia shift of the sun's radius is probably gradually adapting to the fast displaced dark matter radius but the uncertainty for the inertia shift of the Earth's axis is nearly impossible to predict as a consequence of a fast radius contraction of the sun.

The fast dynamic gravity generation of Earth does not influence Newton's orbital rotation around the sun but it is coupled to the dynamics of solar gravity of the fast medium. See Planet chap 5 In addition Earth as a nearly solid state of matter behaves differently to dense gas fluidity of the sun. The dark matter radius of Earth is much smaller than the surface radius and the dark matter rigid rotor can dynamically reach positions of 45^{o} with the rotation axis to change all over again. Note, there are two options, either 180^{o} turnover of the axis*, Leupen's assessment*, or the rotation axis in the solar plane of eclipse.

Similarly one can reason the shift of the rotation axis of Mars having more solid matter than Earth. Only the Earth shift makes it worse than Mars because the polar ice caps are melting, increasing the ocean levels which suggests higher tsunami levels (probably more than 4 km, *see ref Leupen*) and also longer lasting instability to the new equilibrium of axis position. The Mars shift seems less intense.

The unpredictability of the Earth rotation shift has obviously an enormous repercussion to the collective social world community. Either the community behaves within reasonable bounds or as now is understood panic waves in the fast intermediate medium which can influence the inertia trigger for the rotation shift. It is all very well, one can set up a complete physics model which calculates the accumulation of 'elastic stress' between the fast medium and the inertia state but any reasonable prediction seems at this moment of writing impossible.

(2024 comment) An improved analysis and assessment of the precession shock to Earth, is given below and it concludes a 'weak roll over' of the rotation axis of Earth to the equatorial plane cannot be excluded. As the weak role over model predicts, Mars or the Moon are behaving differently than the model culminating solar shifts over aeons..

For the purpose of background information the next article has not been not skipped

IS POINCARE'S LAW FOR THE ROTATION OF AXES OF HEAVENLY BODIES WRONG?
Introduction of 2020

About fifty years ago the pyramid model was launched by Stephan Denaerde. In one of his personal discussions with me about the pyramid model revealed the purpose of the model. Explanation pyramid model ;The statement is as follows:

> Due to the Sun's sudden changes in diameter the rotation axis of Earth could make a sudden shift. Perhaps that severe that the Earth axis and therefore the whole Earth, could tilt over 180^{o} or another possibility could change to 90^{o} getting the equator over old poles and the new pole axis in the solar equatorial plane . Imagine the last, our 24 hour cycle of day and night does not exist any longer. Only the seasonal cycle will be there. Antarctica is in the Earth equatorial plane with the opposite, the sea at the old North pole. Every half year Antarctica is in the tropics followed the next half year by the North pole in the tropics and total darkness at the other hemisphere. No ice caps will be there and parts of Asia and North America are always in the dark. Something similar for South America. Only small strokes of the continents have some twilight every half year.

Well perhaps due to the ellipticity of Earth there is an end position not exactly at the old equator plane but due a wobble the new position of the axis becomes 5^{o} from (up or down) the solar equatorial plane.

Any road the idea is shocking enough. However, is it really possible? If the question is put correctly, the answer is yes but it may only be valid as a potential. There are many considerations to be made before this potential becomes a reality itself. And further what can mankind do about it?

However let us first consider the sciences of the 20th century. Poincaré as a mathematician proved that all planetary orbits around the sun even if the onset of the orbits had some ellipticity then in the end they relaxates to circular orbits all together because gravity of all the eight big planets influenced each other. What has this to do with the rotation axes? Only that these are independent from orbital relaxation and still if the sun pulls suddenly the rug of the equatorial plane then the axes of any planet are not changing which is due to Newton's law of conservation of angular momentum because there is no coupling between orbital changes and the one of the axis. In other words the axes are absolute in their orientation to empty space around these which is correct for non relativistic gravity fields such as our Sun.

Well this explanation of empty space is correct except in the case that there may be an invisible let us say non relativistic medium carrying gravity instead of the gravity as Einstein states is due to the space time curvature of empty space itself. In case gravity is carried by this medium, the picture changes completely and in the theory the physics of gravitational levitation (pilot experiment g-levitation) it is shown that there is a ultra fast or ultra light of medium of dark matter that could behave as the pull of a solar rug to any rotational axis of a planet. But if the rotation axis is already in the plane of the solar equator then any solar shift cannot influence the axis or the axis is not sensitive to sudden solar changes in diameter.

Above is only a statement of a possible potential for rotation axes that the theory of dark matter predicts. The theory may be valid but it is as yet not observed that such an ultra light dark matter medium exists and the question is how can it be observed to be proven? So one needs an experiment to show this ultralight and ultra fast medium is a reality. Another remark is, can one prove the existence of solar radial quantum contractions and so these quantum shifts become real? solar quantum shift

A quick reminder
The weak gravity condition for a macro mass represents an ultra fast and ultra light mediating medium of dark matter acting coherently on solely the protons and electrons of the atoms in a macro mass. The inertia of the macro mass is principally not affected, because the synchronised dynamics of the dark matter cells are only subjected to the square root of the event horizon. It is an alternating coherent

process of the medium still involving all the atoms in electromagnetic low energy excitation. This process of gravity generation can for physics understanding be represented by a rigid double rotating momentum dipole, executing rotation and precession at the mass centre of the macro mass but the coherent cells are all located within a layer close to the outer diameter of the macro mass. The dipole is a simple aid to calculate based on the square root of the event horizon for rotation, the complicated coherent dynamics required for the matrix of nine parameters. Rigid rotors

THE WEAK ROLL-OVER OF EARTH BY RELAXATION OF SOLAR QUANTUM CONTRACTION IN THE DARK MATTER MEDIATING MEDIUM

Overview: The discussion of the physics models

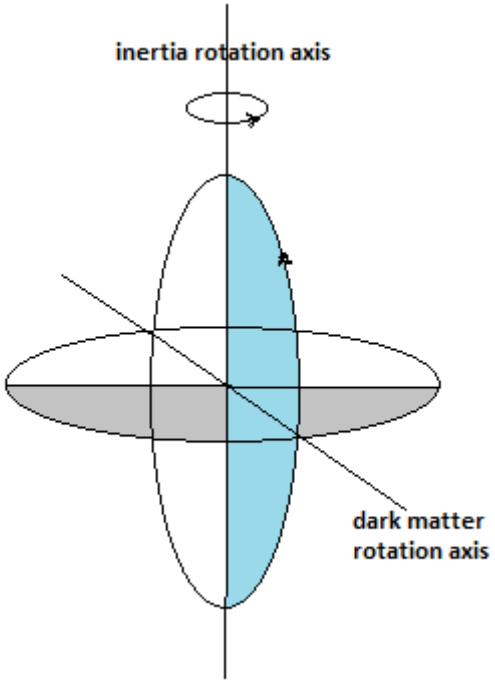
The role over of the rotation axis for Earth due to a precession shift as a consequence of a sudden change of the equal outer dark matter radius of the sun can be understood by considering two physics models of Earth, one for the inertia state of the macro mass and the other for the dark matter of the medium generating gravity.

The 1st precession model for inertia complies to a comet impact resulting in a roll over of Earth, a change of 180º for the axis of rotation. This calculation serves to find what is the change in angular momentum to match the angular momentum in the 2nd model due to precession generated by the mediating dark matter medium.

The 2nd precession model is based on the following assumptions:
The dark matter rotation axis, dm axis, is already in the equatorial plane of Earth and it is supposed to be in that position for at least a million or more years. What is supposed to have happened with the inertia rotation axis at 23º from the equatorial plane of the sun, is that every solar shift of the order of 150 thousand years due to fusion burning, stays coupled to carry over the precession impulse to the gravity generation of Earth along its inertia axis, just the normal situation for the radial to angular momentum transfer by macro entanglement of the medium.

The idea is that the precession energy accumulates mainly in heating up the atomic state of Earth but in the end results in a weak role over, shift, in which the inertia axis transfers to the equatorial plane of the sun making Earth further insensitive for solar shifts resulting in precession impulses of Earth. Obviously this approach is more realistic than previous trials but it lacks the prediction when the 'roll over' may happen.

Further the position of the inertia axis of 23º is assumed to have happened 2.2 billion years before due to a similar precession process but the angular momentum change was more complying to a comet impact resulting in a complete roll over of 180º . Still the precession shift might also have been a real comet impact at the time. The geologic change of 2.2 billion years is supposed to be the beginning of the ice ages. The importance is that the calculated change in angular momentum due to inertia shows that the 'weak role over' cannot be ignored. The imminence is still there because all dark matter parameters are already in their final state for a long time, let say a hundred thousand years of time awaiting the next solar shift.



Par 1 The physics of the dark matter precession due to solar quantum shifts.

The assumption is that as long as the inertia rotation axis is not in the equatorial plane of the sun then the solar shift will generate a precession impulse to the inertia axis of Earth. The dark matter axis of the rigid dm rotor preceded a long time before is in the equatorial plane.

A necessary condition is that there should be a one to one coupling between the inertia axis and the one for dark matter, for otherwise no gravity generation is possible as the equality below (rel 1) determines. How to prove this is of no relevance here. The angle of 23° degrees of the inertia axis to the equatorial plane can be neglected in this assessment.

Par 2 The dark matter equality between radial gravity and angular momentum for a macro mass revolving

The equality is: $g\,(h/c)N_{esc} = R_{dm}\,(m_e\,2\pi c/\sqrt{\lambda})$

The parameters of the macro mass are:
The gravity at the outer radius of the macro mass is g. R_{dm} is the dark matter radius of the rigid rotor which can be equal or smaller than the outer radius R_o . N is the number of coherent aligned dm atoms, mediating mass, driving the dm radius in rotation based on the escape velocity or ionisation of the generalised H atoms corrected for the binding energy of any atomic nucleon.
M as macro mass in kg, and ω the revolution in Hz, the uncertainty constant h, λ is the event radius for the electron mass and the light velocity c. Chap5

$N_o = M/251\,m_e$ $\quad w_{esc} = ½\,m_e\,v^2/1.602\,10^{-19}$ eV $\quad r_{esc} = w_{esc}/5.87\,10^{-6}$

The constant $5.87\,10^6$ eV is Lamb quantum for the magnetic dark matter cells.

ω = spin macro mass $\quad \Delta N_{esc} = N_o/N_{esc}^2 \quad m_e = 9.109\,10^{-31}$ kg

$$N_{esc} = \sqrt{(N_o/r_{esc})} \qquad R_{dm} = g\,(h/c)N_{esc}/(m_e\,2\pi c/\sqrt{\lambda}) \qquad (1)$$

$$R_{dm} = 1.27871\,10^{-21}\,\sqrt{\lambda}\,(g\,N_{esc}) \quad (m)$$

The dark matter radius for angular momentum is based on the rotation entanglement to the radial momentum of the electron but N_{esc} follows the mediating mass in the determination of the overall number of N_o of the macro mass. The rotating electrons generate the magnetic coherent dark matter cells from the mediating medium supporting the idea of the rigid rotors for gravity generation as a dynamic process. This equality was discovered to be correct for the solar parameters of $\sqrt{\lambda}$ and $R_{dm} = R_o$ and consequently assumed valid for any macro mass.

EARTH I

M = $5.98(6.0)\,10^{24}$ kg $\quad R_o = 6.4\,10^6$ m $\quad g = 9.8(10)$ m/sec^2 $\quad \omega = 24$ hrs $= 1.1574\,10^{-5}$ Hz

$\lambda = 4.5\,10^{-3}$ m $\quad \sqrt{\lambda} = 6.71\,10^{-2}$ m $\quad w_{esc} = 1/60$ eV $\quad \Delta N_{esc} = 2.84\,10^3$
$N_o = 2.624\,10^{52}$ dm at $\quad N_{esc} = 3.04\,10^{24}$

Internal parameters (R_{dm} from N_{esc})
$R_{dm} = 2620$ m $\quad N_{dm} = 5.139\,10^{17}$ at $\quad R_{rec} = 1.206\,10^9 \quad c/R_o = 46.9$ Hz

Dark matter dipole $R_{dm} = 2620$ m $\quad n_{gear} = 6.4\,10^6/2620 = 2443$

$1.1574\,10^{-5}$ x 1842 = 1 /46.9 $\quad$ 2620 /1852.6 = √2

$1.1574\,10^{-5}$ x 1852.6 = 1 /46.64 $\quad 1.1574\,10^{-5}$ x 46.64 x 1852.6 = 1

$\omega_{dm} = 5.398\,10^{-4}$ x 2443 = 1.319 Hz $\quad$ 46.9 /46.64 = 1.0056 $\quad$ or 46.64/33.0 = √2

with $1.1547\,10^{-5}$ x 46.9 = $5.397\,10^{-4}$ Hz $\quad$ or $\quad$ 1850 /3600 = 0.51 hrs

$1.1574\,10^{-5}$ x 2620 cos45° = 1 /33.0 $\quad$ instability option for inversion of precession

Or by inversion boosting

$1.1574\ 10^{-5}$ x $4.0522\ 10^{6} = 46.9$ 46.9 x 1 /46.9 = 1 $46.9^2 = 2199.6$
$1852.6 \times 2199.6 = 4.075\ 10^{6}$

The one to one coupling mentioned above, determines that the dark matter momentum dipole R_{dm} is the same for the inertia axis and the dm rotation axis. See for further discussion of the dark matter chap 5
In chap 5 it was explained that the dm dipole rotates in the equatorial plane around the coincidence of the inertia to the dm axis making R_{dm} = 1852.6 m while at 45° to the equatorial plane it switches energy states, from braking to forward phase rotation.

1st Assessment
Calculate the dm radius in rel (1) for the square root of N_o. The maximum radius for gravity exchange between the rigid dm rotors under the product rule, exercise 10

$\sqrt{N_o} = 1.312\ 10^{26}$ dm atoms $n_{gear} = 6.4\ 10^{6} /1.11\ 10^{5} = 5.8$
$R_{dm} = 1.312\ 10^{26} \times 1.2871\ 10^{21} \times 0.0671 \times 9.8 = 1.1104\ 10^{5}$ m
$1.1547\ 10^{-5} \times 1.11\ 10^{5} = 1.285$ 1.285 / 46.9 = 0.0273 reciprocal 36.5
While $6.4\ 10^{6} /1.11\ 10^{5} = 56.74$ with product 36.5 x 56.74 = 2104

The actual $\omega_{dm} = 1.1547\ 10^{-5} /46.9 \times 2443 = 1.32$ Hz for dm relaxation, which stays more or less unchanged. The reason is that the ratio deviates only 2443 /2104 = 1.16 or 16% . As well the n_{gear} = 2443 as 2104 are related to R_o . So whatever the momentum dipole R_{dm} is subjected to, the rate of dark matter exchange seems to be conserved between 1 and 2 Hz or half to 1 sec time exchange.

The value of 2104 invites consideration of dipole frequency doubling due to the 16% deviation. Compare the quadrate values of respectively $1852.6^2 = 3.43\ 10^{6}$ $\sqrt{6.4\ 10^{6}} = 2530$ and $2620^2 = 6.77\ 10^{6}$ m. Around the values it shows that $N_{dm} = N_{esc} = \sqrt{N_o} = 1.312\ 10^{26}$ dm atoms can be maintained. The supposition is that the quadrate of the basic dm dipole represents the same energy state as doubling the frequency of the base dipole here 1853m.

2nd Assessment, heat calculation
Calculate the dm atoms at R_{dm} complying to the Earth radius from rel (1).
$N_{dm} = 6.4\ 10^{6} /(1.2871\ 10^{-21} \times 9.8 \times 0.0671) = 7.56\ 10^{27}$ dm atoms.
The excessive atoms generate ionisations in the macro mass, Earth, which is:
$W = 7.56\ 10^{27} \times 7.325 \times 11.3 \times 1.602\ 10^{-19} = 1.003\ 10^{11}$ joule
Gravity generation is alternation, so one can use the calculated N_{dm} .
7.325 is the ratio of the H atom to the mediating mass: 1837.153 / 251 and 11.3eV is the ionisation energy per H atom corrected for the conversion of eV's to Joule. Something similar of 11.3 eV should be valid for the generalised H atom.

The circulation of dm energy is about half to 2 sec as discussed in the 1st assessment making the heat production around $1.003\ 10^{11}$ = 1 or $2\ 10^{11}$ watt.
The N_o / 7.325 = $2.624\ 10^{52}$ / 7.235 = $3.63\ 10^{51}$ H atoms have heat production of $4.75\ 10^{30}$ watt which is obviously excessive.

Look "Google" up for the heat production of Earth, on average 45 terra watt or $4.5\ 10^{13}$ watt.
It makes the dark matter heat production fifty to hundred times less and poses the question how much is the part in heat production due to radioactive decay within the Earth interior. Say one percent of the present-day heat production seems to be a reasonable baseline to evaluate against radioactive heat production. Over aeons of time the number of contributing atoms may increase reaching the present day value derived in next paragraph. This problem has to be sorted out in more detail.

3rd Assessment, the situation were the assessed angular momentum change of
$(db/dt)_1 = 2.43\ 10^{21}$ kg m/sec is reached.
How many dm atoms contribute to reach the critical momentum?

Take N_o and determine the time of disaster. All dm atoms are thought to be in coherence.

$2.43\ 10^{21} = 2.624\ 10^{52} \times 251 \times 9.109\ 10^{-31} \times 6.4\ 10^{6} \times \omega$

$\omega = 0.63$ rad /sec $\quad 6.3 / 2\pi = 1.003$ Hz or around a second .

Having less atoms contributing means the momentum impulse, the maximum never to be reached. If the relaxation time is half an hour, it makes for $(db/dt)_1$ the number of dm atoms greater than the N_o dm atoms.

The minimum guessed change in angular momentum:
A volume energy to rotational energy scaling of the number of contributing dm atoms is $N_o^{3/2} = 1.502\ 10^{39}$ .The dark matter relaxation time of half an hour: $2\pi /1800 = 3.5\ 10^{-3}$ rad /sec.
Giving the weak momentum change of

$(db /dt)_2 = 1.5\ 10^{39} \times 251 \times 9.109\ 10^{-31} \times 6.4\ 10^{6} \times 3.5\ 10^{-3} = 7.7\ 10^{15}$ kg m /sec.

If ω is around one second (times 2π) then the number of dm atoms reduces to 10^{34}.

It shows that the two parameters, the number of dm atoms and the relaxation time, determine how critical the 'weak roll over' will be. It is due to the supposition of the coupling between the solar contraction and the inertia axis of Earth that the heat production over aeons of time slowly might increase up to contributing atom densities assessed and gradually exceeding the radioactive heat production which suggests to be a too high estimate. The frequency doubling of the dm dipole enhances this conclusion.

Conclusion.
The ratio of (db/dt)'s between both is about half a million, which suggests the 'weak roll over' for Earth which cannot be ignored. It all depends on the heat production scenario which seems realistic enough to determine the imminence for this disaster happening. A possible indication might be enhanced volcano activity in the near future. Another indicator might be a gradual shift of the magnetic poles but such has at maximum a time scale of some weeks or a few months.

What was not realised and this is new physics, gravity generation is an accelerating process, once a certain dark matter mode of exchange or configuration is established, relaxation to the onset situation of exchange is impossible. Once a dm mode is established it maintains itself which is the reason why heat production accumulates. It seems that the rotation around the two axes, dark matter and inertia is the only geometric configuration. Other possible options are not studied.

Par 3 The inertia model of role over given as appendix

The importance of the role over inertia model is the determination of the angular momentum change due to the maximum precession impact, which is comparable to a comet impact resulting in the change of precession momentum:

$$db/dt = 0.35\ M_p\ R_p\ \omega_{sp}\ \omega_p = 2.43\ 10^{21} \quad \text{kgm/sec}$$

See end of this paragraph

APPENDIX 1 introduction
Since the recent publication (2009) of the classic theory for the role-over of the rotation axis of Earth under impact of a heavy meteor, the quantum gravity theory for the rotation shift of the pole axis was put under scrutiny again. The publication is privately published by J. Leupen**. see ref.1.**

The role-over theory of the pole axis based solely on Newton's principles of mechanics, gives a criterion for the initial angular momentum of the nutation cone for the rotation axis of Earth. The nutation roll over is a nonlinear process oscillating between building up potential energy in the earth crust and the release of kinetic energy in the liquids like magma and the surface water after impact. This criterion has been used to assess the calculations for the angular momentum due to the dm quantum relaxations. See note below.

For the role-over theory the meteor impact is 10^{12} kg at a velocity of 18 km/sec under the most favoured angle to bring the earth axis in nutation. For a roll of 180° the impact energy is about the same as for a 90° rotation of the axis after which the axis returns to its original position. The potential energy for the elasticity of Earth is the highest at a 90° turn of the axis. The angle of the pole axis of 23°.5 with the plane of orbit is of no importance for this theory.

Table 1

Name	R_o(orbit) km 10^8	R_p km	M_p kg	ω_{sp} rad/sec	ω_{sp} days
Earth	1.50	6300	$5.974\ 10^{24}$	$7.272\ 10^{-5}$	1.0
Mars	2.278	3370	$6.423\ 10^{23}$	$7.078\ 10^{-5}$	1.0274

Subscripts': o = orbit p = planet sp = rotation planet

Meteor: $1.0\ 10^{12}$ kg; R_p = 6300 km; v = 18 km/ sec.

$(db/dt) = 10^{12} * 0.7 * 6.3\ 10^6 * 18000 = 8.0\ 10^{22}$ kgm/sec

$W = ½ * 10^{12} * (18\ 10^3)^2 = 1.62\ 10^{20} = 1620.0\ 10^{17}$ joule.

The angle of the rotation axis for the planets are neglected. For the vector cross product, sin (23°.5) = 0.399 . The angles for the planets are respectively according to the table 23°.5; 24°.94 .

Table 1 gives the parameters for the calculations in table 2.

Table2.

Name	τ_m yrs	τ_s yrs	τ_p sec	(db/dt) kgm/sec 10^{22}	W joule 10^{17}
Sun :					
	$1.04\ 10^7$	$1.69\ 10^{-2}$	$5.336\ 10^{-7}$	none	none
Earth:					
	$1.48\ 10^5$	$1.585\ 10^3$	$1.49\ 10^5$	153.0	290.0
Mars:					
	$0.97\ 10^5$	$3.66\ 10^3$	$3.70\ 10^4$	34.6	122.5

Subscripts': m = mass factor s = sun p = planet

1 yr =3.15410exp(7) sec

For the sun:

$\tau_s = \tau_p$; the radius is $7.0\ 10^5$ km ; giving an approximate gyration radius of $4.9\ 10^5$ km ; mass is $2.0\ 10^{30}$ kg; the rate of mass loss $4.29\ 10^9$ kg /sec ; the spin rotation 25.4 days ; the quantum shift λ_s = 1.5 km. It is a constant in all the calculations.

The calculation of τ_m, the first time constant of the gravity of the sun.

According to ref.2 and ref 4 the expression for the dm quanta is:

$$dM_s / M_s = \lambda_s / R_o$$

Where dM_s is the maximum graviton energy to reach relaxation. λ_s is the fundamental dm quantum length and M_s is mass of the sun with R_o the orbit radius, ($\lambda_s c^2 = G M_s$). The time constant is:

$$\tau_s = dM_s / dM_{disp}$$

dM_{disp} is the rate of mass loss per second. Given according to table 1 as 4.29 10exp(+9) kg/sec. Note that the time constant is inverse proportional to the orbit radius.

The calculation of τ_{sun} and τ_{planet} the second relaxation constant.
τ_s and τ_p are derived in the appendix.

$$\tau_s = R^2_o / (\lambda_s c)$$

$$\tau_p = M_p / M_s \tau_s$$

Here is an interesting consideration. It means that if the planet mass was the same as the sun then the relaxation time constant is the one of the sun. Apparently a smaller mass seems to accelerate the graviton exchange. This is more or less correct and it is discussed further in the appendix. Note that the time constant is proportional to the square power of the orbit radius. For small masses like comets, the time constant τ_p is zero suggesting no relaxation mechanism.

The calculation of $\omega_{prec} = \omega_p$.

In fact ω_{prec} is the onset magnitude for the roll-over for the nutation cone. In ref 3 it was defined as a precession of which the impulse only lasted an instant. However correctly it is the onset of a nutation for the rotation axis of the planet. As mentioned due to plasticity and elasticity of the planet inertia the nutation behaviour is a non linear process.

$$\omega_p = \lambda_s / (2\pi R_p \tau_p)$$

Where λ_s is a constant for every ω_p calculated for a planet, while R_p is the radius of the planet surface. Better is to use the gyration radius.

It is assumed that the quanta follow zero- radii orbit with λ_s as an increment. The question is what happens in between these radii in between planets? Nothing, because only in the presence of a mass centre of a planet or of a spinning mass, a relaxation can happen. In between, the radii store energy which relaxates in a quantum shift provided mass loss occurs.

The calculation for the onset of the rate of change of the angular momentum.

$$db/dt = 0.35 M_p R_p \omega_{sp} \omega_p \quad \text{kgm/sec}$$

The rotation of the planet is in table 1, ω_{sp} . The factor 0.35 is related to the gyration radius and it is always smaller than 0.4 which is valid for a rigid body. For any of the planets the factor has been taken the same.
$(M R^2)_{planet}$ is the inertia momentum.

The calculation of W (precession energy)

$$W = \tfrac{1}{2} (db /dt) R_p \omega_p \tau_p \quad \text{joule}$$

W is the integrated rate of change as a constant integrated over the time constant. It is similar to the entire impact energy of the meteor, only the overall transfer in potential to the planet mass is not too well known.

The last two columns, db/dt and W, are to be compared with impact data of the meteor. As mentioned only the earth data are relevant in comparison to the meteor.

Clearly because of the lower revolution for the planet Venus a speculative assumption is that this planet has a marginal role-over compared to the other three lower planets and it is at odds having a position of a retrograde revolution, for the planet has reversed its revolutions in the role-over to an external observer. In other words roll-over is not happening, only may be up to the maximum of a 90° roll-over. It may also explain that the rotation angle is still zero or perpendicular to the orbit plane.

The final conclusion for Earth is that the relaxation happens every 150 thousand years resulting in a 180° roll-over. It means that during the evolution of the solar system, Earth had 20 to 40 thousand

roll-overs' during 4 to 4.5 billion years. Only the last half billion years seemed to correlate with the Ice Age periods of Earth. The explanation may be either the theory for the formation of the angle of the rotation axis or a major head-on collision like the destruction of the asteroid-belt planet.

Appendix 2 The dm quantum time constant. The second time constant for the relaxation process of the sun's dm quanta.

To come to the time constant τ , which is the non-equilibrium situation and the purpose of this appendix, one is revered to ref.3. In **ref.3** the equality of the dm quantum relaxation was already derived. For the non-equilibrium for number of the dm quanta is valid:

$$dN_{lin}/dt = -(1/\tau)\, N_{lin}$$

Per definition:

$$N_{lin} = M/(m_{lin}\, c) \text{ with } \quad m_{lin} = h/(R_{lin}\, c)$$

M is the mass of the absorber of pseudo vector quanta(dm quanta), m_{lin} is the energy of the dm quantum and R_{lin} is the modulus of the dm quantum vector components and h is the uncertainty constant of Heisenberg. Where the time constant τ is always real with respect to the radial and angular energy of the dm quanta. The relaxation of the number of dm quanta in time is proportional to the number of dm quanta and determined by a constant τ .

By substitution of $N_{lin} = Mc\, R_{lin}/ h$ and the derivative, where $dR_{lin}/dt = c$

$$\tau = R_{lin}/ c$$

With Newton's quantum law: $R^2 = \lambda\, R_{lin}$ gives:

$$\tau = R^2/(\lambda\, c) \qquad \text{(A1)}$$

The time constant here is independent of any factor for the time scaling.

$$dt/dT = \sqrt{(\lambda/R)} = 1/\beta$$

The two time constants.

Since the time constant τ is valid for every graviton generating (absorbing) source, one can consider two interacting mass sources.

For two sources:

$$\tau_1 = R^2{}_1/(\lambda_1\, c) \quad \text{and} \quad \tau_2 = R_2{}^2/(\lambda_2\, c) \qquad \text{(A2)}$$

R_1 and R_2 are the radii of the two different masses around the centre of mass, conform Newton's cantilever law:

$$M_1\, R_2 = M_2\, R_1 \qquad \text{(A3)}$$

Where λ is proportional to M, it determines:

$$M_1\, \tau_2 = M_2\, \tau_1$$

which is the purpose of the derivation. Apply; $\tau_x\, \lambda_x\, c = R_x{}^2$ to (A2) and (A3). So

$$\tau_2 = M_2\, /M_1\ \tau_1$$

This relation is used as in the second table.

$$\tau_p = M_p\, /M_s\, \tau_s \quad \text{(p, s for planet, sun respectively.)}$$

β-scaling.

Naturally a wicket way to discredit the rel (A3) is to state that τ should be β-scaled.

$$\tau = (1/\beta)\, R^2/(\lambda\, c)$$

See the comment at the end of this paragraph.

Returning to table 2, then for the Earth situation, let us recalculate the parameters in case it is β-scaled.

$\beta = v/c = \sqrt{(\lambda/R_0)} =$	$1.0\ 10^{-4}\ \exp(-4)$
$\tau_{s0} = R^2/(\lambda c) =$	$5.0\ 10^{10}$ sec
$\tau_s = \tau_{s0}\ /(1/\beta) =$	$5.0\ 10^{6}$ sec
$\tau_p = M_p/M_s\, \tau_s =$	14.94 sec
$\omega_p = \lambda_s\, / (2\pi\, R_p\, \tau_p\,) =$	$2.536\ 10^{-6}$ rad/sec

$db/dt = 0.35\ M_p\ R_p\ \omega_{sp}\ \omega_p =$	$2.43\ 10^{21}$	kgm/sec
$W = ½\ (db/dt)\ R_p\ \omega_p\ \tau_p =$	$2.9\ 10^{23}$	joules (precession energy)

The reciprocal of ω_p is 28.6 dd compared to 24 hrs or 1dd .
The change in momentum and energy is about the same as the meteor impact.

Comments
The β-scaling is for the equilibrium situations in which the dm quantum energy and momentum, angular and radial, are conserved. Here one deals with a graviton relaxation mechanism that is not conserved. How to prove this important statement solely based on the theory of pseudo vacuum quantisation, is extremely difficult but an first attempt is successfully achieved in chapter 1 'the alternative cosmology' based on pseudo vector neutrinos.
However there exists another approach. In the proposal for a pilot experiment of gravity levitation, one meets a similar situation. Here the components of the dm quanta are driven in a non-conserved quantum state by electromagnetic sources of high frequencies, say 33 GHz. It is impossible to match the e.m.-generator frequencies in β-scaled parameters.
So it should be non-scaled to β; meaning the dm quantum exchange is with c-velocities.

home

References:

Ref.1: Title: *Could the Sun rise in the west?*
A theory explaining the Great Flood, the Ices Ages, the formation of mountains and a few other geologic phenomena.
Author: J. Leupen. ISBN: 978-90-812507-1-9: June 2008. Probably in the Royal Library. Was not accepted as a scientific study due to Poincaré.
www.couldthesunriseinthewest.com/ Does not exist any longer

Ref.3 not available or private communication