

Modified Theory of Relativity

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Abstract For decades, two aspects of nature have been either; overlooked, poorly understood or misconceived.
The first is Anisotropic Dark Flow Acceleration (DFA).
The second is Relativistic Resistance against Motion (RR).
The consequences for their inclusion will tremendously broaden our present picture of the Universe.
Prediction: The special theory of relativity will begin to fall apart already in the years 2016 to 2017; when the theory of relativity will be tested on board the ISS and Galileo 5 & 6.

Keywords: Flyby Anomalies, Dark Matter, Orbit Anomalies, Test of the Theory of Relativity, ISS measurement, Allais Effect

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1. Introduction

As technical development and experience have progressed during the decades, we have thus gained a greater insight into the nature of the cosmos; however we are constantly facing new discoveries that simply cannot be implemented in the prevailing paradigm. For some time now it has become increasingly apparent that the field of astrophysics requires new knowledge in order to understand and solve the growing list of perplexing kinematic anomalies and phenomena's that have so far been discovered. This new theory will solve the long list of mysteries in a very natural way, which so far we have unfortunately failed to properly understand.

2. Anisotropies Dark Flow Acceleration

In order for a significant anisotropic acceleration to be measurable on Earth (e.g. with a gravimeter or various pendulums), requires specific conditions to be present.

Regardless of the inclination of the solar system in proportion to a "theoretical" anisotropic acceleration direction in the following section referred to as the Dark Flow Acceleration Direction (DFAD), it would not be possible to directly measure such a DFA even if we presume its strength to be somewhere around 100 μ Gal.

It is somewhat similar to the situation that it is also impossible to measure the acceleration of Earth's orbit acceleration from Earth (given that everything on Earth is part of the same acceleration frame of reference).

However, there is an indirect method of measuring Dark Flow Acceleration (in short DFA), which is the same force / acceleration responsible for the Allais Effect [1].

The following are required:

• The Earth must accelerate slightly opposite to DFAD, (towards north) and the cause of the acceleration must be due to the force of gravity

of the Moon or from the orbital acceleration of the Earth.

- A testing body on Earth (able to interact/measure DFA) must be unaffected by the force accelerating Earth's opposing DFA.
- The measurement device must be situated at a place where it (more or less) can interact with DFA. These requirements allow a testing body to be exposed
- for DFA, whereby anomalies can be measured.

Notice figures show in further detail, the secret behind how and why the Allais Effect Phenomena's can be measured...

Measuring the Allais Effect is usually most effective right below the Moon. Naturally, this is because the impact forces especially on the northern hemisphere (explained and illustrated in Figure 2), will be the strongest when the Moon is located directly above the point of measurement.

Another precondition is that if the testing body is also affected by a downwards pull towards the Sun/ Moon this will be capable of contributing to the downwards pull of the test body and expose it further.

Note that to the extent that the upward acceleration (of Earth) exceeds the (downward) DFA, exposure of DFA will be similarly weakened.

The theory is consistent with all proven Allais Effects except for the measurement of 26 January 2009 where the upward acceleration of the Earth must be presumed to be due to Earth's orbit acceleration. This means that Earth's inclination must be between 90.5° and 91° relative to the DFA axis, (+0.5° to 1.0° relative to the ecliptic axis). Later in this article, we will see why the solar system is angular relative to DFA.

In many cases, the emergence of the anomalies is delayed.

The reason is that the Earth's rotation first needs time to bring a testing body below into the correct position.

An example of this is the measurement of 2 August 2008. The measurement is described and illustrated under Figure 3.



Figure 1. According to a NASA team led by Alexander Kashlinsky: The Dark Flow Direction is directed towards the area between Hydra, Vela and Centaurus



Figure 2. The illustration shows a solar eclipse where the moon is located 1500 km higher relative to a parallel, linear line, 'X', between the Sun and Earth. This corresponds to approx. 0.5° . In that way, the Moon's acceleration due to gravity pulls the Earth in the northern direction with an acceleration which can be calculated by GM/r^2 divided by a factor of $180 = 0.000007 m/s^2(70 \mu Gal)$

Dark Flow [1] been discovered to happen in the Earth's southern direction and is caused by the same acceleration that is also responsible for the Allais Effect. (The magnitude is about 70 μ Gal)

- Testing body A (see illustration) will therefore not be directly affected by the Earth's upward acceleration and is thus exposed to influence by DFA.
- On the other hand, **testing body B** (near the Equator) will be in the same frame of reference as the accelerating globe and will therefore not by exposed to DFA.
- Neither will testing body D (and others located south of B) be exposed to DFA influence as the testing body must be capable of neutralising the upward acceleration.
- Testing body C is fully affected by the upwards acceleration of the Earth (in the same acceleration reference frame) and is therefore not exposed to DFA.
- Testing bodies located between A and up towards C will gradually be more affected by the Earth's upwards acceleration and will therefore also be poor testing areas for detecting pendulum anomalies.



The anomaly was measured several hours after the Solar Eclipse had finished.

The cause is that testing bodies A1 and B1 (in Romania and Ukraine) first had to be brought below the Moon (to position A2 and B2). Of course, this happened due to the rotation of the Earth.

The same principle for the anomaly delay is responsible for the below anomalies in 1961 and 2009 (and many more). [6] Graph sources [2] and [2]

3. Relativistic Resistance

We know that it requires ever more energy to maintain constant acceleration.

No scientific method has ever proven that such relativistic resistance against motion only applies during the acceleration period. This theory claims that resistance against motion also happens by constant speed. We will refer to this as Relativistic Resistance against Motion (Hereafter "RR"). This, of course, means that Newton's first law is incorrect, and it means that all orbits are instable.

A possible cause of this could be that the speed increment of an object causes energy and therefore also mass increment. Due to mass increment, the curvature of space near a moving object also increases.

Space resists deformation (e.g. the release of tension of space results in a gravitational wave). There are several reasons to believe that the process by which kinetic energy converts to the mass/energy is a reversible process. Space must have some kind of elastic nature woven together with matter, allowing space to convert and conserve relativistic energy to reversible elastic space deformation / tension.

So the Lorentz transformation is also an expression of the tension increase of space which a fast-moving object exerts. When the force (causing the speed of an object) stops, speed-related tension on space is automatically released too, so the Lorentz transformation factor is also a resistance factor. Relativistic resistance is a reversible process, and the Lorentz equation reflects the magnitude of *resistance against motion* and the magnitude of possible deceleration at the same time. A resistance factor can be calculated based on the already known Lorentz equation;

$$\gamma(v) = \frac{1 \text{ meter}}{\left[\sqrt{\left(1 - \frac{v^2}{c^2}\right)}\right]} \cdot 1 \text{ meter.}$$

4. Consequences

We have recently discovered several space probe anomalies, some decelerating and some accelerating. The biggest mystery has been why only small objects were affected and *apparently* not bigger objects such as astronomic objects. The answer is that all objects and all orbits are in fact affected, but many anomalies cancel out after a certain period, some have not yet been discovered, some are insignificant and some are only active in certain periods.

Even Earth is constantly affected. As a whole, RR and DFA have several significant consequences. These can be verified and recognised in many orbits and trajectories. On the biggest scale, galaxies and clusters of galaxies are affected as well. The same law of nature is responsible for

the strange orbits and motion that we believe is caused by so-called dark matter.

Thinking of RR as a reversible process combined with DFA leads us to a different understanding of the nature of the Universe whereby a long list of kinematic orbit and trajectory anomalies and mysteries [7] are solved nearly automatically.

5. Absolute Motion, Absolute Acceleration and Relativistic Resistance

Principle 1:

As long as there is no orbit acceleration or motion away from the Dark Flow Direction (hereafter DFD), the maximum Dark Flow Speed (DFS) will be reached. As soon as this happens, the Dark Flow Acceleration (DFA) and Relativistic Resistance against Motion (RR) counteract each other. Both factors are possible to calculate because the speed of Dark Flow is known (600kms⁻¹). What remains is therefore only to calculate the magnitude of RR by that speed based on the assumption that 600kms⁻¹ must be the maximum possible Dark Flow speed, and the magnitude of DFA is thereby also (indirectly) known. (See the graph Figure 4).



Figure 4. This illustration shows that as soon as the maximum dark flow speed is reached: Dark Flow Acceleration and Relativistic Resistance counteract each other

Principle 2 - Local RR Magnitude:

The magnitude of RR (seen from an absolute motion frame of motion) always depends on true speed. '

When the dark flow is e.g. 600 kms⁻¹ and a galaxy moves in the opposite direction at; 250 kms⁻¹; the true, absolute speed of this galaxy is reduced to 350 kms⁻¹. (Figure 5).



Figure 5. The magnitude of RR (seen from an absolute motion frame of motion) always depends on true speed



Figure 6. The RR affecting an object can be compared to a retracted arrow. All that is required for the retracted, potential, kinetic energy of the arrow to be released is that the force of the string is released (which also illustrates that motion opposing DFD will cause less RR, also simple to calculate based on the Lorentz equation)

Principle 3:

RR is a reversible process. This means that if no force pushes / pulls an object (further) towards the RR direction (see principle 4), the object will decelerate.

Principle 4 - RR Directions:

The RR dependent on speed is the same magnitude due to any movement perpendicular to the DFD axis (see P in Figure 7) as it is moving straight towards DFD while it is gradually decreasing, starting from perpendicular movement to movement opposite to DFD (any northern direction).



Figure 7. The RR dependent on speed is the same magnitude due to any movement perpendicular to the DFD axis as it is moving straight towards DFD while it is gradually decreasing, starting from perpendicular movement to movement opposing DFD (any northern direction)

Principle 5: - Local & Absolute Relativistic Resistance

Seen from a local perspective, absolute motion (for instance of the Earth or Solar System) against any direction is affected by RR. Regardless of the basic absolute motion speed of the astronomic object, RR must always be calculated based on the Lorentz equation based on a certain reference frame. Even though Earth is already travelling fast (for example 300 k ms⁻¹), this already affects the reference frame (time and distance) on Earth. Principle 6:

Any additional speed relative to the Dark Flow Speed (DFS) triggers additional (local) Relativistic Resistance against Motion (RR).



Figure 8. Spacecraft X, Y and Z will constantly decelerate

Spacecraft Q will decelerate due to EDFA effect. Objects following orbit A Predominantly Perpendicular Relative to the DFD (inclination 45 to 90°), will not decelerate, but are affected by perihelion precession anomalies and apsis anomalies. These orbits are change eccentricity and become gradually more circular. It's happen due to a combination of SR (RR) and GR effects



Figure 9. The illustration shows orbit inclination anomalies must also be expected for many objects. Effective Dark Flow Acceleration (EDFA) is responsible for this effect to



Figure 10. The more obits are aligned with the DFA axis, the stronger time dilation and deceleration anomalies must be expected. This mean all orbit inclination less than \pm 45° relative to the dark flow axis will lead to orbit collapse, - due to the exposed EDFA

This new aspect of science makes it possible to predict any space probe anomaly and also solves all the already existing orbit mysteries, including the mysterious galaxy dynamics that for a long time have thought to be caused by so-called dark matter

6. Prediction

The magnitudes of these anomalies depend on true absolute speed (relative to the DFA axis).

For example, based on e.g. 7.66 kms⁻¹ (which applies to ISS), the maximum resistance can be calculated to a factor = 3E-10 m. and for the space probe: Near (speed 12.739 kms⁻¹) = 9E-10² m.

Special Relativity (SR) can only be correct when understood in an absolute Dark Flow motion reference frame. Motion opposing Dark Flow will reduce RR. Of course, this also means that time will go faster when moving opposite to DFA.

In 2016, it is planned that the ISS will be equipped with advanced testing equipment [8].

We will then realize partly that something is wrong with Special Relativity, and also that we do in fact face predictable evidence showing that Dark Flow must be real.

Furthermore the predicted deceleration of ISS and Galileo 5 & 6 is perhaps significant enough to reveal that Relativist Resistance is also a matter of fact. (*These following calculations are shown below*).

ISS – **Kinematic Time Dilation:** (orbit aligned with the dark flow inclination)

If we assume the ISS would follow an orbit aligned to the ecliptic south / north (dark flow) axis, deviation from the time dilation predicted by special relativity (during one ISS orbit) can be calculated as follows;

Time dilation does not only happen on a vertical straight south / south axis, but also when moving in any horizontal direction. This mean when the ISS is moving from 'X' to 'E', (see Figure 11) the expected time dilation due to SR influence will total only be 50% of the expected amount. At 'E' time gain and loss of time will equalize. When moving from 'E' and to 'Z' the clock on board ISS will gradually begin to thick faster, starting right after leaving 'E' and culminating at 'Z'. At 'Z' the SR-timedilation "anomaly" will reach the culmination points that demonstrate the biggest discrepancy between expected time dilation according to the prevailing and modified theory of relativity. At Z the dark flow speed is reduced by 7660 ms⁻¹ 1/sqrt(1-7660^2/299792458^2)- 1, - Which mean that time will tick 3.26e-10s. faster according to modified theory of relativity, and not 3.26e-10 slower according to the prevailing theory.

The ISS orbital period = 5561 seconds. A quarter of that period (1390 seconds).

During that period the effective average speed opposite dark flow is about $3830 \text{ms}^{-1}/2 = 1900 \text{ ms}^{-1}$

The average time dilation factor is therefore, $-1/sqrt(1-3830^2/299792458^2)-1 = 8.16e-11$

The total loss of time per orbit relative to a clock on Earth, - 1390s * 8.16e-11 = 1.13e-7s.

The gain of time for the other quarter of the orbit relative to a clock on Earth, - 1390s * 8.16e-11= **1.13e-7s**.

Which mean half of such orbit will have n SR time dilation effect.

But the inclination of the ISS is <u>not</u> aligned with the dark flow axis; it is however inclined relative to that axis somewhere between 20° to 25° , therefore we shall only expect an approximately time loss about **5.0e-8s**

Off course the same principle applies for all kinds of orbits, and also the Galileo 5 & 6 satellites now dedicated for scientific tests.

Galileo 5 & 6 Kinematic Time Dilation (orbits aligned with the dark flow inclination)

If we assume that the Galileo 5 & 6 satellites will follow orbits aligned to the ecliptic south / north (dark flow) axis; - then the deviation from the time dilation during one Galileo (5 & 6) satellite orbit can be calculated as follows:

The orbital period = 46800 seconds. A quarter of that period (11700 seconds) is where the Galileo will **gain** time due to gradually slower absolute dark flow speed. Speed is 3800 ms^{-1} .

The effective average speed is half of the orbit oreed, - $3800 \text{ ms}^{-1}/2 = 1900 \text{ ms}^{-1}$

The average time dilation factor is therefor, - $1/sqrt(1-1900^2/299792458^2)$ - 1 = 2.0e-11

The total unexpected loss of time per orbit relative to a clock on Earth 11700 * 2.0e-11= 2.34e-7s

The gain of time for the other quarter of the orbit relative to a clock on Earth, -11700 * 2.0e-11 = 2.34e-7s.

Which mean half of such orbit will see no SR time dilation effect.

Galileo 5 & 6 Kinematic Time Dilation (orbit 45° inclination relative to the dark flow axis)

If we assume that the Galileo 5 & 6 satellites will follow the orbits of 45° inclined relative to the ecliptic south / north axis, (relative to the dark flow axis) the time dilation during one Galileo 5 & 6 satellite orbit can be calculated as follows:

LOSS OF TIME					
(MODIFIED THEORY OF RELATIVITY)					
Half of the satellite orbit, - the speed opposite Dark flow, = $33,3\%$ of the orbit speed. $3800 \text{ ms}^{-1}/3$			=	1267 ms ⁻¹	
The time dilation factor =	The time dilation factor = $1/sqrt(1-1267^2/299792458^2) - 1$		=	8.9e-12	
The total unexpected loss of time per orbit relative to a clock on Earth =		23400s. * 8.9e-12	=	2.08e-7s	

GAINED TIME					
(MODIFIED THEORY OF RELATIVITY)					
Half of the satellite orbit, - absolute motion speed, = $(66,6\% \text{ of the orbit speed})$ 3800 ms ⁻¹ /3*2			=	2534 ms ⁻¹	
The time dilation factor = $1/sqrt(1-2534^2/299792458^2) - 1$			=	3.57e-11	
The total gain of time per orbit relative to a clock on Earth =		23400s. * 3.57e-11	=	8.35e-7s	

GAINED TIME					
Half of the satellite orbit, - absolute motion speed , = $(100\% \text{ of the orbit speed})$ 3800 ms ⁻¹			=	3800 ms ⁻¹	
The time dilation factor =	1/sqrt(1-3800^2/299792458^2)- 1		=	8.03e-11	
The total gain of time per orbit relative to a clock on Earth =		23400s. * 8.03e-11	=	1,87e-6s	

Galileo 5 & 6 – Calculation, loss of Altitude

When the ISS moves from the *Starting point* 'S' (Figure 11) and forwards to the *RR Culmination point* 'C' the ISS will feel an increasing Effective Dark Flow Acceleration (EDFA), hence deceleration and thus the

object loses significant **altitude**. The average Lorentz factor (*also used above for calculating time dilation*) will be used again (factor 5.91e-11). Since the braking force trigger the same magnitude EDFA, the Lorentz factor is in the process converted to deceleration.



Figure 11. The more northerly aligned orbit movement is with the DFA axis, the more it will reveal deceleration and time dilation anomalies



Figure 12. In the wake of FGC1287 (Figure 15) follows a tail of gas and stars which get lost.[7]

The cause of such losses is periodic galaxy collapses (due to periods dominated by mainly aligned inclination relative to DFA). During such periods, mass (stars etc.) is forced towards the centre of a galaxy whereby the central mass density increases significantly and therefore causes a very fast central orbit speed. However, when either the orbit inclination of the galaxy is changing or when a part of the inner orbital mass is changing its inclinations whereby at least one of these factors becomes mainly perpendicular (relative to DFA), the centrifugal force and the already fast internal orbit speed can cause mass to be ejected from the centre



Figure 13. The same principle is responsible for ejection observed by Arp. Halton [7]



Figure 14. The same principle is responsible for ejection observed by Arp. Halton [7]



Figure 15. The cause of ring galaxies is that very dense galaxies change inclination and begin to move predominantly perpendicular relative to DFA axis

This allows the centrifugal force, to force stars away from the centre. Gravity is stronger near the centre due to larger mass density, and therefore an inner core of stars is affected enough by central gravity to avoid the centrifugal force, to force the inner stars outwards and thereby leaving a hard inner core of stars to remain near the centre unaffected



Figure 16. A galaxy which mainly moves with alignment relative to DFA Axis will collapse. A long-term influence of such motion is the cause of quasars



Figure 17. The mass of the 2 illustrated galaxies is the same, but the size is very different. The cause of the very different sizes is due to the different angular motion relative to the DFA Axis. Galaxies periodically collapse, and periodically extend their size. The surprising trend in galaxy evolution is studied by Susan Kassin NASA. Galaxies continue to increases their energy, it is unclear what is going on, - but it is simple, - it is the centrifugal force at work, when the orbit inclination is predominantly perpendicular with the DFA axis



Figure 18.

If all galaxies only would move straight towards the Dark Flow Direction, all the galaxies inclination would be exactly perpendicular relative to the dark flow axis. Because when stars in a galaxy periodical is moving faster towards the DFD (which mean if the orbit inclination is different as 90° relative to the DFA axis), – then RR is increasing and thereby simply preventing change of the Galaxy orbit inclination to take place, and when moving exactly opposite the Dark Flow direction, Effective Dark Flow Acceleration is responsible for the same result. But because galaxies not only moves straight towards DFA, but also sideward relative to the DFA axis, – a secondary sideward RR direction will occur and effect the orbit inclination as illustrated above.

This means that a very special inclination pattern must be revealed in the cosmic web, which also is exactly what we see. A similar orbit inclination pattern must apply for solar systems (in the milkyway etc.)



Figure 19. Image sourse ESA Spooky Alignment of Quasars Across Billions of Light-years

Estimated altitude loss - ISS satellite v= 7660 ms ⁻¹ - period 5561 seconds
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Lotinuted antitude 1055 105 Sutemite v-	1000	nis period coor seconds			
Max speed loss per period	=	1390 s. * 5.91e-11 m	=	0.0000008	ms ⁻¹
Average speed loss per period	=	1390 s. * 5.91e-11 m/2	=	0.00000004	ms ⁻¹
Orbit circumference loss per period	=	1390 s. * 0.00000004 m	=	0.00005560	meter
Radius loss per period	=	1112 s.* 0.00000004 m /π/2	=	0.00000885	meter
2 periods	=	2 * 0.00000885 m.	=	0.00001770	meter
Estimated altitude loss - GPS satellite altitude 21800 m v= 3800 ms ⁻¹ - period 46800 seconds					
Max speed loss per period	=	11700 s. * 4e-12 m	=	0.000000047	ms ⁻¹
Average speed loss per s. / period	=	11700 s. * 4e-12 m /2	=	0.00000023	ms ⁻¹
Orbit circumference loss per period	=	11700 s. * 0.00000023	=	0.000273780	meter
Radius loss per period	=	0.000273780m. /π/2	=	0.000044	meter
2 periods	=	2 * 0.000044	=	0.000088	meter
Estimated altitude loss - Satellite orbiting Sun aligned with the dark flow axis (radius 1,5 million km)					
Max speed loss per period	=	7884000s * 1.69e-9 m	=	0.0133	ms ⁻¹
Average speed loss per s. / period	=	7884000s * 1.69e-9 m/2	=	0.0066	ms ⁻¹
Orbit circumference loss per period	=	7884000s * 0.066	=	52523	meter
Radius loss per period	=	83630/π/2	=	8363	meter
2 periods	=	2 * 8363	=	16727	meter

The last three calculations (right above) are all based on orbit inclination <u>aligned with the dark flow axis</u>.

The loss of altitude is in these cases a deceleration (escalating) effect. It happens because motion away from the DFA will expose EDFA.

But since orbits very rarely are inclined to be completely aligned with the DFA axis the altitude loss is much less.

The very last calculation shows a satellite orbits inclination when aligned with the DFA axis, - based on the same distance as between the Sun and the Earth, - such satellite will lose a significant altitude and speed.

7. Consequences of the ISS and Galileo Satellite Measurements

We shall expect...

• That precise measurement on board the ISS (and Galileo 5 and 6) will contradict the theory of

relativity – whereby the theory in its current form simply cannot survive.

- That the cause of the unexpected result can only be that an absolute relativistic movement direction frame exists.
- That the Special Theory of Relativity can only be properly understood in such absolute movement frame of reference.
- That the theory of relativity must be completely reconsidered.
- That we are forced to critically review the foundation of the theory of relativity and (on the one hand) consider which aspects of the foundation substantiate the existing knowledge we have of e.g. GPS and (on the other hand) which aspects of the theory must be based on wrong conclusions / interpretations.
- That the current interpretation of the Michelson-Morley experiment must be rejected.

- That the ISS measurement substantiates / proves that Dark Flow is real (*which is also supported by WMAP*).
- That the ISS measurement evidently confirms that there has been no reason to reject the ether theory.
- That we are back in the end of the 18th century where it was found that "ether" must exist.
- That the only candidate able to explain the correct interpretation of the Michelson-Morley experiment is the gravitational field of Earth which must consist of the same elastic "substance" as the ether. The ether therefore follows the Earth and therefore the ether does not collide with the Earth.

Finally large orbits, or trajectories such as the space probes Near, Rosetta and Galileo-1, are large enough to reveal significant speed and altitude anomalies as well, the more aligned motion relative to the DFA axis the stronger anomalies must be expected.

8. Mass Motion and Relativistic Energy

In the late eighteenth century, length and time contraction was known as a consequence of Lorentz equations. The Lorentz equation became later the very basic of the theory of relativity. But something seems to have gone wrong.

- GR Conflict with quantum physic,
- Problems with black holes.
- Former NASA Physicist Disputes Einstein's Relativity Theory (gravitational lensing) [10]
- Flyby anomalies
- Pioneer Anomalies

This theory asserts that just by modifying the expression "curvature of space" to "stretching space", the possible interpretation can be completely different, and a long list of mysteries almost automatically solved.

The Modified Theory of Relativity (MRT)

- Allows a simple and natural explanation, what dark energy really is, just the opposite, release of stretching space.
- It even explains why so called dark energy (release of gravity) is "accelerating"
- It makes it possible to connect elastic space to the strong nuclear interaction.
- It makes it possible to understand gravity as a side effect of the strong force and therefore united
- It can explain the perihelion anomaly only based on Newtonian classic physic.
- It reveals that NASA has swept the pioneer anomaly under the blanket.
- It clearly and simple explain why space probes are accelerating when approaching close to the Earth (Flyby)
- It can predict a SR anomaly ISS test anomaly
- It can predict and prove that Dark Flow is true.

A thought experiment will be necessary to demonstrate what could have been misunderstood.

'A' live in the basement of a skyscraper, 'B' at the top of the same building.

Both have measured the time it took a photon to travel 13,7 billion years from the very first star and to us.

But A's clock (deeper in the gravitational field) is as we know ticking slower than B's clock.

B would argue that it took the photon one minute longer to reach the Earth – than the time A has measured. Simply because B's clock is ticking relative faster than the A's clock. The difference is in reality less, but it means nothing, the experiment could happen in the future where the distance could be a billion time larger.. It's the same point.

We accept that the speed "c" is the same for both A and B.

When both A and B know the time and speed, A and B can only conclude that either the distance to the star that emitted photon is significantly different, which is utopian, because the universe is not likely to change shape depending on the observer who observes a process.

Otherwise, the conclusion can only be that A's ruler (in the basement) must have changed (increased its size) compared to A's ruler.

Only in this way A and B both can assert that 'c' is the same for both (even thou 'c' is not comparable the 'same'.

The modified theory of relativity (MTR) asserts that everything; - both, - time, - distance, - matter as well as the ruler, - always is **stretching** proportional due to relativistic influence. Which mean the ruler is a proportional variant.

The prevailing theory of relativity, does not address whether the ruler is a variant or not, nevertheless GR asserts that the **path** of the photon reaching A and B must be different. (Which contradict the thought experiment clearly demonstrates is makes no logical sense).

The two different interpretations are essential also according to the (real) cause of the Perihelion Precession Anomaly of Mercury (hereafter PPAM).

And again we will face the same dilemma, - GR asserts that PPAM is caused by variation of the relativistic path / orbit of Mercury.

But MTR asserts that that even though it is true that time and distance are relativistic factors of the orbit of Mercury, the consequence is only that the orbit distance (and time) is *measured relative different*, simply only because rulers are relativistic variants, - and not because any relativistic real changing of the path / orbit of Mercury is taken place.

The new conclusion is therefore that the cause of the PPAM is only caused by the deformation of the ruler (which means local circumstances).

Because the ruler near the Sun the is relative more stretched, compared to further out, - the distance to the sun is also a relative smaller. This will in general, but especially by perihelion because stronger acceleration due to gravity, and therefore also faster orbit speed as expected, and therefore the true cause of PPAM.

Calculation can be found here http://science27.com/mercury.pdf

9. Conclusion

Already in 2016 / 2017, we shall see that the special theory of relativity will see its first crack. At first, it will be necessary to reconsider the interpretation of especially

one of the foundations of the theory of relativity which has already been mentioned above, i.e. the misinterpretation of the Michelson-Morley experiment.

Given that we will be forced to acknowledge that Dark Flow is a reality, our world view is literally in free fall. The universe therefore finds itself in a verifiably anisotropic motion (Dark Flow) whereby many questions will arise to which will require answers.

One of the biggest and most pressing questions therefore is to find the answer to whether or not the Allais Effect may be the proof that a significant anisotropic acceleration is linked to Dark Flow.

Thus, we rather quickly (at least in theory) will be forced to relate to whether or not Earth's acceleration in a Dark Flow is unhindered and therefore whether or not Earth sooner or later will reach (the unthinkable and impossible) speed, "c".

Intuitively as well as logically, we know that this is impossible. "Something" must stop Earth before it reaches "c".

Were we close to finding that "something" (a mysterious, braking force) already when Pioneer space probes were sent into space several decades ago? Were we back then, already on the threshold of acquiring new knowledge? A knowledge which, unfortunately, was swept under the carpet by NASA? [4]

Note; the loss of relativistic energy/mass (which also can happen under certain circumstances) is similar to mass converted to gravitational waves.

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