

## **The Static Mass Universe Tracking [SMUT] particle experiment**

Summary of important information about the SMUT particle, the experiment that it features in and some side uses for the SMUT particle experimental equipment

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## **What is the SMUT particle?**

The SMUT [Static Mass Universe Tracking] particle is the defining particle that validates the Awareness model of physics.

The extract that follows is a brief summary of the SMUT particles properties and its associated potential value in the creation of potentially new cosmological insights.

Quote:

“...We believe that if particles with imaginary properties, i.e. (imaginary charge, imaginary spin, imaginary mass) and so-on exist, then particles with imaginary momentum must exist, as it can be an attribute of a particle. The most famous particles with imaginary properties are tachyon particles.

If a particle has imaginary momentum (which is imaginary motion) it cannot have real momentum (real motion). It therefore must be static because imaginary motion would completely exclude real motion. We call this particle the Static Mass Universe Tracking [SMUT] particle. “Static mass,” because it is a static mass and “Universe tracking” because it tracks through the universe in relation to a side experiment that can be done in addition to the main experiment we are proposing.”

## **Important note about the formation of the virtual version of the SMUT particle**

When virtual forms of SMUT [Static Mass Universe Tracking] particles form they do so just like any other virtual particle

Readers without physics knowledge will find it difficult to fully understand and appreciate the series of drawings that follow. For such readers this blog has been posted so that you know such an experiment exist and furthermore it is detailed in both scope and nature. For readers with a science background you will find an extended description of the experiment if you click to [The static mass universe tracking particle experiment](#). If the SMUT particle experiments can be validated in a laboratory it would confirm the scientific merit of the Awareness model of physics. Please be advised that new SMUT particle text has been added to the blog [A closer look at the SMUT particle](#) on 25/Nov/14.

When other virtual particles are formed they form with an anti-particle equivalent. This is in accordance with the laws of physics. The same is true for the SMUT particle when it forms as a virtual particle. It is created with an anti-SMUT particle equivalent. Once again, this conforms to the laws of physics. However, there is a difference: Because the SMUT particle and anti-SMUT particle cannot move back towards each other they cannot annihilate each other to form energy. This has implications for [The static mass universe tracking particle experiment](#). It means that the SMUT particle will not be destroyed before it can be detected. It would also be easy to detect because it has an anti-particle opposite number with it.

## **The Static Mass Universe Tracking [SMUT] particle experiment**

### **A scientific experiment to validate the Awareness model of physics**

In other areas of this website we have mentioned scientific theories and ideas that are groundbreaking or unconventional. What is described below is a scientific experiment to support the concepts we have put forward. This experiment has practical applications beyond our theories. These applications will also be discussed here-under.

Premise: We believe that if particles with imaginary properties, i.e. (imaginary charge, imaginary spin, imaginary mass) and so-on exist, then particles with imaginary momentum must exist, as it can be an attribute of a particle. The most famous particles with imaginary properties are tachyon particles.

If a particle has imaginary momentum (which is imaginary motion) it cannot have real momentum (real motion). It therefore must be static because imaginary motion would completely exclude real motion. We call this particle the Static Mass Universe Tracking [SMUT] particle. “Static mass,” because it is a static mass and “Universe tracking” because it tracks through the universe in relation to a side experiment that can be done in addition to the main experiment we are proposing.

We should state here that our experiment is not related to proving relativity physics concepts. Our work is more akin to the holographic model of cosmology (Bohm).

### **This is a concept statement of a hypothesis we support**

Preamble: If the SMUT particle can be measured it proves that other particles, like the all seasons type particle of our theory can exist. We further believe that it is possible to measure the SMUT particle via conventional scientific apparatus, we will further describe the experiment in this document. It is our opinion if the characteristics of this particle can be demonstrated and observed this would lead to it being possible to determine where the centre of the universe is, that would be a secondary effect of the experiment. For those that are not familiar with cosmology and physics what we are saying is that this new particle we are talking about does not move with the expanding universe, but remains static at its point of creation. We believe if our hypothesis has merit, the implications for science are significant.

For now we will go on to describe some key concepts that must be known about the experiment. A vitally important piece of information is that we ourselves are not static in the universe. We are moving with the universe, by this I mean the Earth is rotating beneath us, it also orbits the Sun, the Sun orbits the centre of the Milky Way galaxy and the Milky Way galaxy travels through the universe. We are always moving along with the Earth. What you have to remember is that the SMUT particle is not moving with the Earth or any other astronomical body. It remains dormant at the point it was created. The SMUT particle gives a very convincing illusion that it is moving, but this is only an illusion. What is really happening is that the Earth and therefore we, because we are on the Earth, are moving away

from where the SMUT particle was created. Furthermore the speed the SMUT particle travels at is the sum of the motions we and the Earth are experiencing. When we create a SMUT particle in the lab, the lab is pulled along with the rotation and orbit of the Earth and the SMUT particle is left behind where the lab and ourselves once were.

### **The SMUT particle does not break the laws of science**

Another key concept of our ideas is that the SMUT particle does not break the laws of science, including causation or conservation of energy. It is not indestructible, it can be converted into energy and it behaves for the most part like any other particle. It stays in a wave form until observed and becomes a particle like any other atomic particle/wave would. This is important when it gets detected in the experiment as described below. Another important facet of the SMUT particle is that it cannot have zero rest mass as a photon has, because zero rest mass particles dissolve into energy if they are stopped or are static. The SMUT particle has to have a measurable mass in order to exist. This will help in its detection in the experiment. Its other attributes, apart from magnetic charge and imaginary motion/momentum are not relevant to our endeavor.

The experiment described in this document utilizes existing technologies and theories which we will mention here but not go into detail as it would be redundant, as such information is publicly available for those who search for it. However, for the benefit of laypeople it is appropriate for you to appreciate that energy exists in any forum whatsoever including in a vacuum. This effectively means if a universe was a vacuum there would be energy inherent in it anyway. This can be demonstrated by the well known Casimir effect. The process uses two mirror like metallic plates with no electric charge put close together. They interact with the virtual energy of a vacuum in a way that draws such energies, and their related particles, into our reality. The Casimir effect is a way of turning virtual particles that make up a vacuum of space into real (material) particles. When a virtual particle is drawn into real space (our reality) it becomes a real particle that we are familiar with like an electron, photon, quark, lepton and so-on. Sometimes the type of particle drawn into real space has a very short lifespan, but that does not invalidate the fact it was drawn into real space.

### **The relevance of the Casimir effect to the experiment**

We will now talk further about how the Casimir effect must play a part in the main experiment. The Casimir effect is used in the experiment to bring into reality the SMUT particle, along with the other virtual particles and energies. SMUT particles, like other virtual particles, would already be in virtual form in a vacuum. In this case we are using the Casimir effect to draw the virtual version of the SMUT particle into reality. We need to do this in order to measure them with conventional scientific measuring devices. In the graphics below, the device employing the Casimir effect would be at point D in the topmost part of the experiment diagram. A secondary diagram describes a customized version of Casimir plates that the experiment needs in order to work.

## **The arrangement and type of atomic particle detectors use in the experiment**

Points B and C in the diagram of the SMUT particle experiment (first diagram below) are spherical arrangements of atomic particle detectors. The detectors needed in the main version of this experiment would be ones that the SMUT particle could travel through and be detected on its journey. On the other hand, if you want to use the SMUT particle as a generator, which is possible, you would use a detector that absorbs the SMUT particle. For this you would use a very simple detector made of a dense metal (like lead) plate that the SMUT particle would crash into on its journey. This would reduce the particle to energy. This type of detector is called a Microchannel plate detector and is already used in scientific research. Scientists measure the radiations emitted when particles strike the metal plate. This gives them information about the quantum particles they are studying.

For the main experiment you would use detectors that the SMUT particle would travel through and not absorb the SMUT particle. These are much more complicated devices than a simple dense metal plate. These are run on the premise that there is something that the particle being observed interacts with as it passes through the area where it is recorded. Usually the substance being interacted with is gaseous, hence the name Gaseous ionization detector. The neutrino detector is an example of this concept. It sometimes uses chlorine as the substance that the neutrino particle interacts with, however the chlorine is in a liquid form in this type of detector.

## **Use of an atomic clock in the experiment**

It is important to note is that we are using two layers of detectors. This is to detect if there is any change in “perceived motion” of the SMUT particle. We do not know at this time what direction or speed the SMUT particle will travel in, or at what speed. We may detect a variable speed in the SMUT particle’s journey, and that would give us clues about the Earth’s, Sun’s and Milky Way’s movement in the universe. The same goes for using an atomic clock (ultra accurate clock) in the experiment. The atomic clock represented by point A in the upper part of the experiment diagram is set off when the first SMUT particle is produced. We measure the time it takes to get through the detectors. This tells us the “perceived speed” of the SMUT particle. This can also tell us about the movement in the universe of the Earth, Sun and Milky Way, because it would tell us what kinds of speeds those astronomical bodies are travelling.

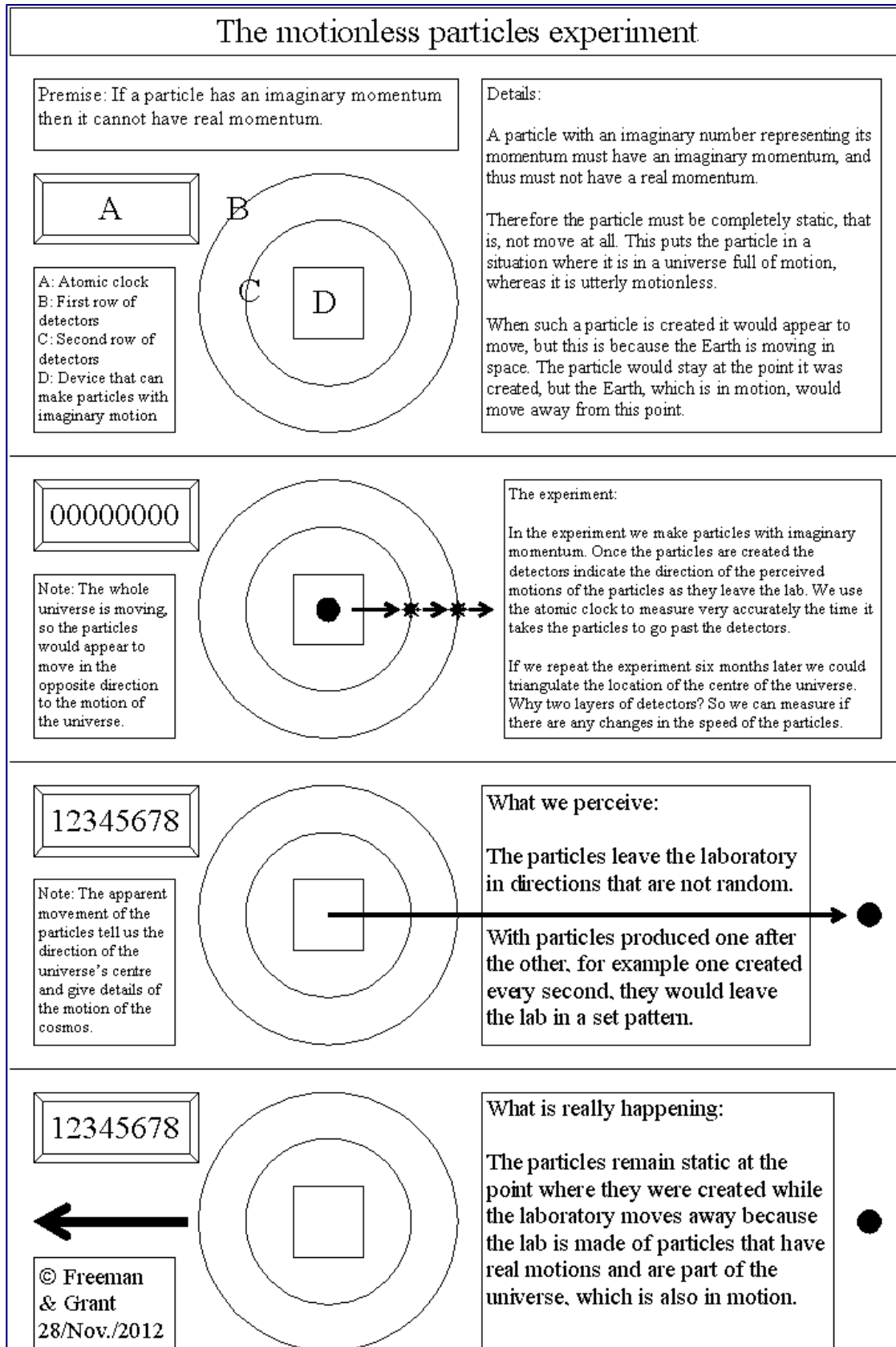
## **The relevance of Earth’s motion in the experiment**

In the experiment our goal is to produce a stream of SMUT particles for a single day. The idea is to track where they land in the spheres of detectors around point D, where the SMUT particles originate in the experiment. As mentioned earlier, the Earth is moving and we are on the Earth. So is the lab the SMUT particles are generated in. The idea is that as the Earth rotates the lab and the sphere of detectors rotate with it. The result would be that the SMUT particles would always “move away” in one direction only – that being the opposite direction to where the Earth is moving to. Thus, as the Earth rotates and because the SMUT particles always “move away” in the same direction, a circular pattern would appear in the

spheres of detectors. This is described in a diagram below. It would look like a circle drawn around the edge of the detection spheres. It is like rotating a roll of cardboard and putting pen on it. The pen stays static in your hand while the roll of cardboard is moving. This is what is happening with the SMUT particles, they are static while the detectors are moving. We see the SMUT particle as “moving” and the detectors as static because we are moving at the same rate as the detectors. The detectors are static on the Earth’s surface, as we would be standing near them. That gives the illusion that the SMUT particle is moving and we are not.

The ring pattern is important, it proves the SMUT particle exists. If the particle did not exist there would be no ring pattern in the detectors, all you would see in the results are a random assortment of other particles hitting the detectors. You would still get those particles in this experiment, but you would see amongst the random hits a circle pattern going around the sphere of detectors. The ring pattern would look something like an equator around a globe of Earth model, but a bit more offset.

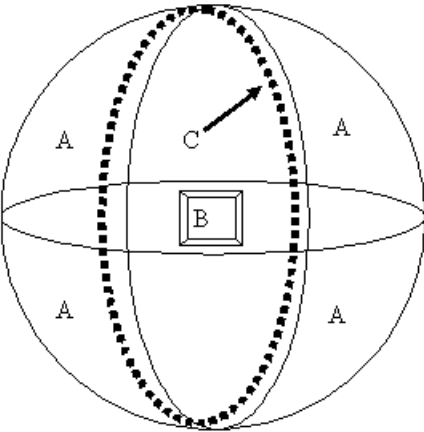
**Main diagram referred to in text above:**



**Other supporting diagrams:**

Circular pattern that could be seen in the experiment:

### Why a circular pattern appears on the SMUT particle experiment apparatus



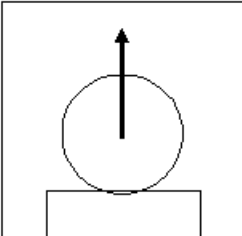
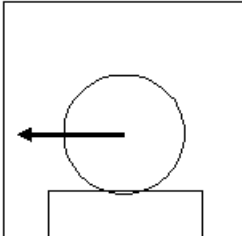
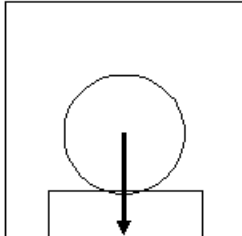
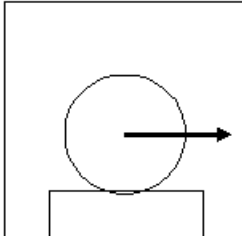
In the SMUT particle experiment we see a circular pattern appear on the sphere of detectors that surround the Casimir plates that helped to generate the numerous SMUT particles created in the experiment.

The reason for this is because the Earth rotates and the SMUT particle always appears to travel in the same direction compared to the universe.

Key:

- A: Sphere of detectors that surround Casimir plates
- B: Casimir plates that help generate SMUT particles
- C: Circular pattern of SMUT particles recorded on detectors

### What we see in the lab at six hour intervals:

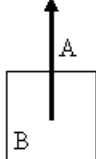
Lab room at midday	Lab room at 6.00pm	Lab room at midnight	Lab room at 6.00am
			
SMUT particle moves up	SMUT particle moves left	SMUT particle moves down	SMUT particle moves right

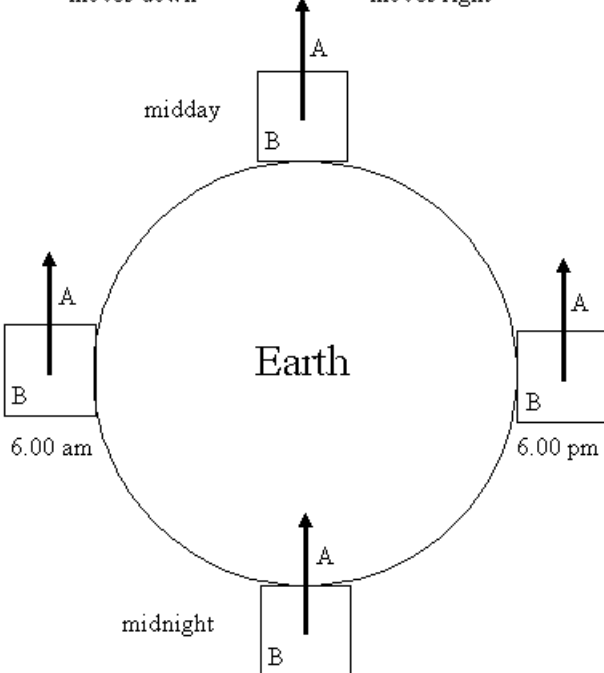
### What is actually happening:

The diagram to the right shows the Earth with the location of the laboratory the SMUT particle experiment is being conducted in. As the Earth rotates the laboratory moves with the Earth's rotation.

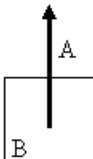
The SMUT particle does not move from the point of its creation, but because the Earth rotates we get a circular pattern on the sphere of detectors in the experiment.

midday





6.00 am



Key:

- A: The perceived motion of the SMUT particle at different times of the day.
- B: The location of the SMUT particle experiment lab at different times of the day.

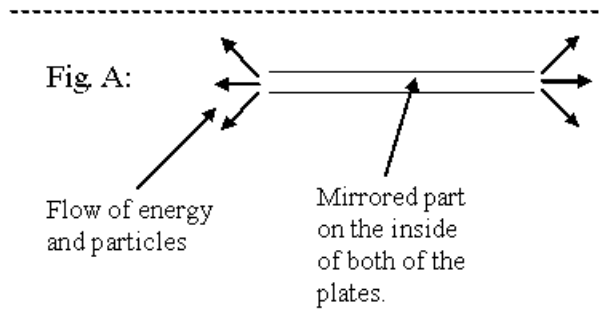
© Freeman and Grant 29/May/14



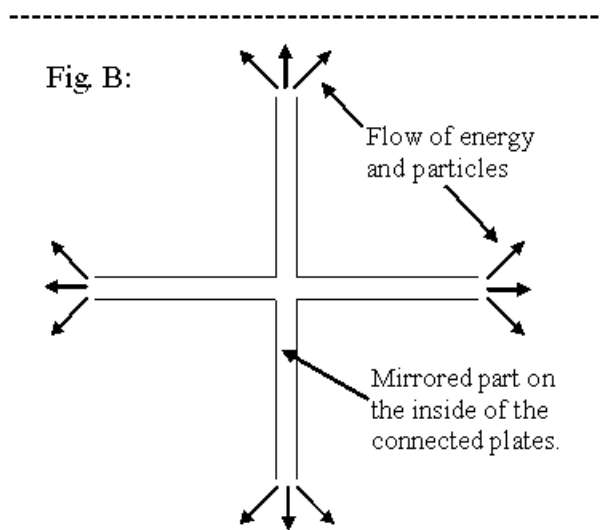
Custom Casimir plates needed for the experiment:

### Custom Casimir plates for SMUT particle experiment

**Problem:** Casimir plates as they are normally constructed would yield a false result in the SMUT particle experiment. Most of the particles and energy produced would go in a limited range of directions, as shown in figure A. It would give the illusion of the particles correlating along the same plane as the direction of the plates.



**The solution:** Redesign the Casimir plates so as to allow a greater range of directions that energy and particles can flow in, such as in figure B. This shows what the plates would have to be like if you wanted the material produced to come from a mainly 2D perspective, i.e. length and width. This is still not the design needed as the main amount of energy and particles would go length wise and width wise. If the SMUT particle is going height wise, then it again gives a false result.



The form the Casimir plate would need to take in the SMUT particle experiment is shown in figure C. This design allows for a 3D flow of energy and particles, i.e. width, length and height. The goal of having the design like this is to give an reasonably omni-directional flow of energy and particles, thus eliminating the problem of creating a false reading of a ring pattern that the plates shown in figure A and B would give you.

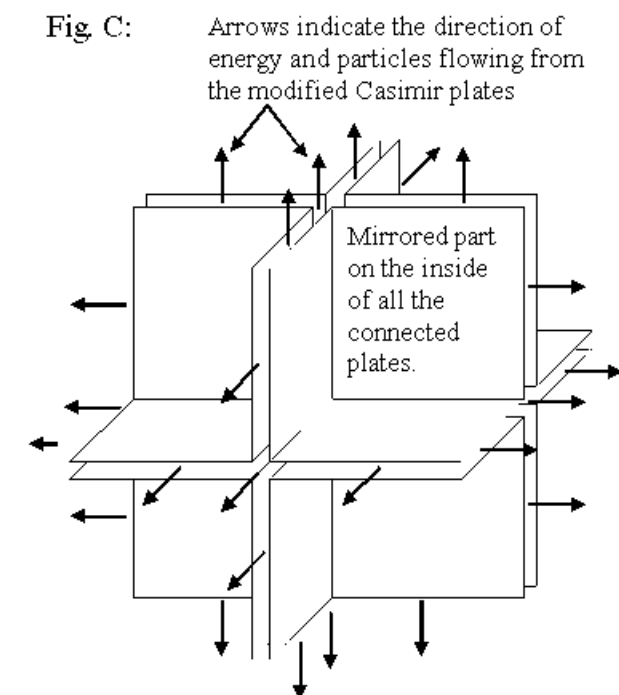


Figure C is not the perfect solution of having a Casimir effect that truly goes in all possible directions, but we feel it goes far enough to avoid the false positives created by using the configurations of plates as seen in figures A and B.

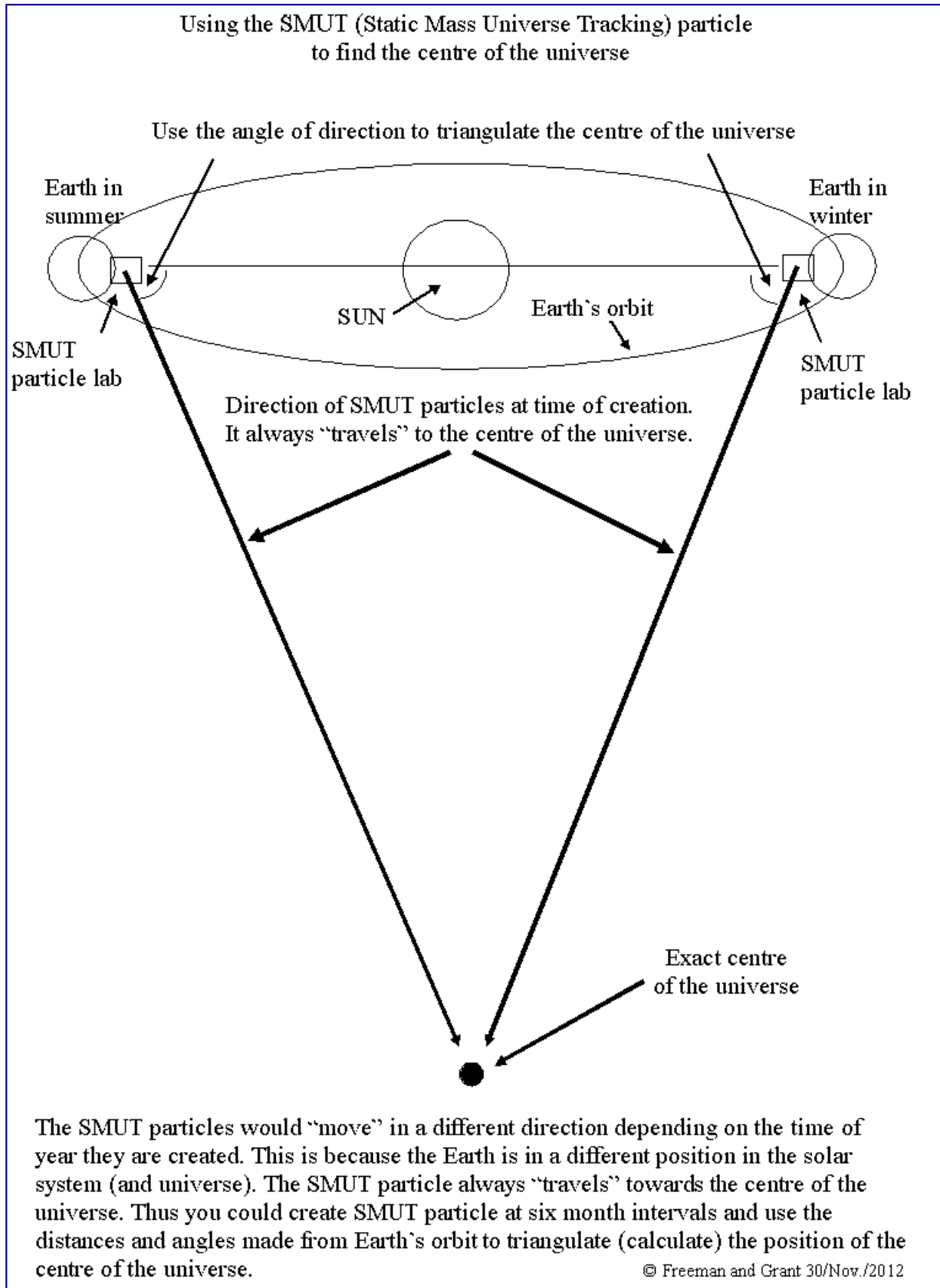
## **A secondary experiment to the SMUT particle experiment**

A side experiment that could yield important data for the science of cosmology.

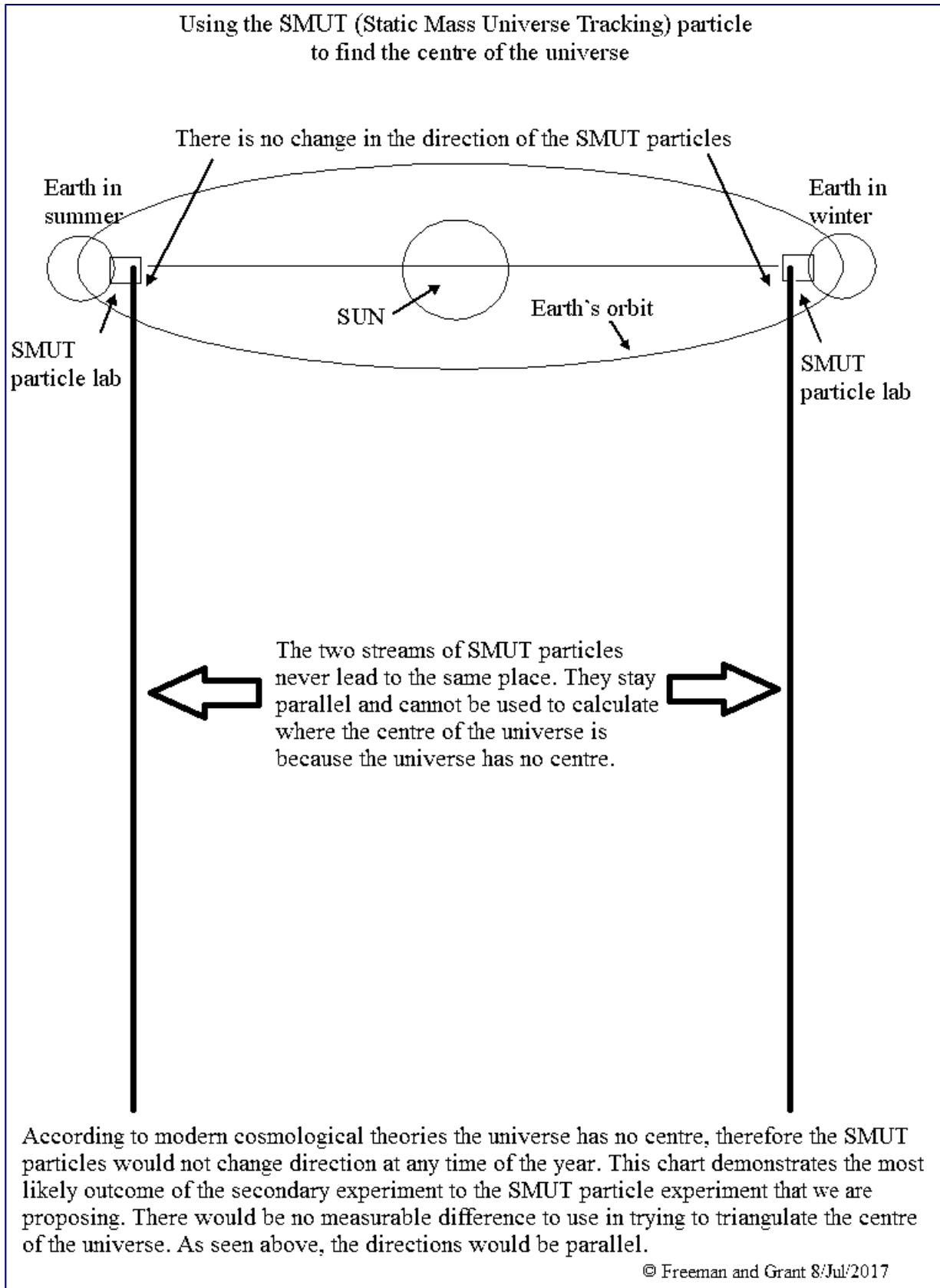
One thing that can be done as a secondary experiment is to set off the SMUT particle generator at point D, but do it six months apart. You would compare the direction of the SMUT particles "motion" in to the position of the Sun as seen from Earth at six month intervals. You would measure the difference in angles every six months and use them to triangulate the centre of the universe as the SMUT particle is perceived to always be "travelling" in the opposite direction to the motion of the universe. This would mean a stream of SMUT particles would always point to the area the Big Bang took place in. Having said that, modern theories about cosmology state that the universe has no centre, thus the most likely outcome would be that there would be no difference in the direction the SMUT particles. They would "travel" in the same direction without any any deviation no matter what time of year they were generated.

If there is some measurable difference in the direction of the SMUT particles, and we say there would not be any change, the information the side experiment gives could be used to help calculate the size of the universe and thus it's mass, and also calculate Earth's position in relation to the centre of the universe. Also in this side experiment having two layers of detectors is important because it would let us know if the SMUT particles appear to be accelerating or decelerating. This would tell us about the motion of Earth, the Sun, the Milky Way galaxy and the acceleration rate and current speed of the expanding universe. All of these phenomena would be immensely useful in cosmology.

**The expected "intuitive" outcome many people would expect this experiment to have:**



**The result the experiment would most likely actually have:**



## **How to use of the SMUT particle experiment as an energy generator**

It is possible to use SMUT particle as a free energy source.

If the SMUT particle experiment were done using Microchannel plate detectors that absorb the SMUT particles instead of just detecting it, then the experiment would become an energy source. In conventional atomic experiments if a particle is created the energy you get back is always equal to the amount of energy used to create the particle in the first place. This conforms to the laws of energy conservation. With the SMUT particle this is not the case. You would create the particle, but no energy is used to create it or make it “move.” By that I mean draw the virtual SMUT particle into our reality and the universe moves past it while it stays still. What would happen is that the SMUT particle is reduced back to energy when it hits the detectors in this variation of the experiment. The energy of the SMUT particle’s journey is added to the Microchannel plate detectors. The energy that the Microchannel plate detectors accumulate could be harvested and put to use. To summarize: The energy of the impact on the detectors was not part of the creation of SMUT particle or it's "motion", thus you are getting more energy out of the process than you put into it. Therefore it could be used as an energy source. We entitle this configuration of the apparatus of the SMUT experiment a Static mass reactor.

## **How the SMUT particle experiment set up would work as an interstellar compass**

It is possible to use the SMUT particle as a navigation aid.

This is an idea that will make any anime fan squeal with joy, particularly if they are into outer spaced themed anime. In many space opera anime there are devices that works as interstellar compasses. No matter where they are in space they always points in the same direction. They serve as a navigation aid. Even if the starship they are installed within had to undertake extreme maneuvers, the device would always point the same way. One could argue a gyroscopic compass could do that, but it is also possible to use the SMUT particle experiment in the same way. When a SMUT particle is generated it always appears to “travel” in the same direction. It will appear to move in the opposite direction to the expansion of the universe. Therefore if the experiment was set up on a starship it would appear that the SMUT particle would always be moving in the same direction, so it could be used in the same way as a compass. This would be achieved by comparing where the SMUT particle was generated in the experiment (a known fixed point) apparatus to where it is detected in the apparatus (again, a known fixed point). This would give a measurable line that works just like the needle of a compass, that is, always pointing in the same direction.

## Likely questions about the SMUT particle

Note: Written in the first person as a Q & A session, my associate in the SMUT particle project agrees with my answers below.

Could SMUT particles act as a stabilizer to the universe?

This is a question that is worth exploring, but I do not have an answer to it. If SMUT particles exist in the universe, and are motionless within it, they might act as some kind of support structure to the universe. Possibly even contribute to dark matter? I don't know. Although this is an idea I do not have anyway to prove, I think it is worth further investigation. SMUT particles as dark matter and the universe's support structure are not concepts I want to commit to one way or the other.

Could the SMUT particle be used as an anti-gravity device?

No, I am talking about sub-atomic particles, they would not have the mass to lift anything at a level that scales with our macroscopic world, even if it were used in vast numbers. Also, I clearly say it is not indestructible. If it were to go through a powerful gravitational field, but not fall into it, then it would lose energy just like any other particle, this process can get to a point where any particle could lose enough energy to become nothing but energy, and the SMUT particle is no exception.

Could the SMUT particle be used as a drilling device?

No, for the same reasons as it not being able to be used as an anti-gravity device. It is too small and has too lower mass to act as a drill, even if used in large numbers, and the process would convert the SMUT particles to energy anyway. It would be like drilling with a flashlight, it doesn't work because the photons from a flashlight beam would not interact with matter in a way that would drill through it like a power tool.

Could the SMUT particle be used as a laser?

No, laser beams are made from photons, SMUT particles and photons are not the same thing. A photon has a zero rest mass, meaning no mass while it is motionless. A SMUT particle must have a rest mass, being motionless it has to have a definable measurable mass while it is motionless or it would dissipate before it could ever form.

What causes the creation of virtual SMUT particles before they were brought to the "real" universe in the SMUT particle experiment?

I would say the Big Bang, or atomic and sub-atomic reactions would do this. Energies captured in the Casimir effect could also become SMUT particles. There is much about these sorts of sub-atomic and atomic reactions we are yet to discover. I would be willing to say that the SMUT particle could be created in some of those reactions, and created as virtual particles in the quantum foam in the vacuum of space.

Why did you come up with the SMUT particle experiment?

To be taken seriously a scientific hypothesis needs an experiment or mathematical formulae (preferably both). I came up with a hypothesis – particles with imaginary attributes exist. The SMUT particle experiment is a way of proving the hypothesis by putting a particle with imaginary attributes into a position where it can be observed and measured by detection technology that exists today.

Could the SMUT particle and SMUT particle experiment be use as a clock?

Yes, the SMUT particle could be used to measure time, by measuring the time it takes from when it was generated at the Casimir plates to when it gets to the detectors. However, this is totally redundant as the SMUT particle experiment apparatus already contains an atomic clock.

Can the SMUT particle experiment be used to detect cosmic motions we do not know about?

Yes, when the SMUT particles are measured in the main experiment calculations can be made that can factor in known motions like the Earth's rotation, any ground movements, the motion of the Earth's orbit, the gravitational effects of the moon and planets on the Earth and various other influences that may affect the experiment's results. After deducting all the known influences, motion effects may be found that we currently do not know about. This information would be useful in the field of cosmology.

Are SMUT particles, or at least virtual SMUT particles, part of the quantum foam that makes up the vacuum of space?

Yes, virtual SMUT particles, and virtual All Seasons particles, are like all other types of virtual particles are part of the quantum foam. However, they are most likely not a significant part of the quantum foam.