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# Particle Physics From the Bible!

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**Abstract**: Most people never think of the Bible as a source of scientific knowledge. In these pages, I argue that the Bible contains powerful secrets regarding the fundamental structure and composition of the physical universe. Once properly understood, these secrets will shake the foundations of physics and revolutionize the transportation and energy production industries. Our current internal combustion engines, vehicles and power plants will look painfully primitive compared to what is coming. We will kick ourselves in the rear for having been so wrong for so long. There is evidence to suggest that these secrets were known to one or more ancient civilizations. They were the builders of the megalithic structures at <a href="Baalbek">Baalbek</a> (Lebanon), <a href="Tiahuanaco">Tiahuanaco</a> (Peru), and the <a href="Giza Plateau">Giza Plateau</a> (Egypt). I will further argue that modern physics is either without foundation or based on erroneous and, at times, laughable concepts.

# **Crackpot Physics**

I am rather critical of the physics community in general and what I refer to as their deep-rooted <u>crackpottery</u>. I make no apologies to anybody in this regard. Theirs is merely a descriptive science which only scratches the surface while ignoring the underlying causes and first principles and, as Paul Feyerabend once wrote in <u>Against Method</u>, "the most stupid procedures and the most laughable results in their domain are surrounded with an aura of excellence". A descriptive science is good enough for impressive, albeit mundane, engineering tasks but cannot shed light on deeper aspects of nature that can lead to truly revolutionary insights. Worse, it leads to fallacies of interpretation. One cannot hope to get an understanding of Bible physics unless one first understands what is wrong with current physics.

#### **Causal Motion**

In my opinion, the most misleading <u>notion</u> in physics is the one that maintains that a body in motion remains in motion for no reason at all, as if by magic. This is also the most difficult thing to explain to a trained physicist. In fact, modern physicists pride themselves in that they have done away with the old "superstitious" Aristotelian shackles and are thus free to see the universe as it really is. Theirs is a WYSIWYG (what you see is what you get) type of science. Problem is, acausal motion is not much more valid than the flat earth hypothesis, if not worse. It is partially the result of an unfortunate misinterpretation of Newton's first law of motion. The assumption is that, since no Newtonian force is required to keep a body in inertial motion, nothing is required. It is a rather foolish assumption because it overlooks the fact that Newtonian force is, by definition, only associated with macroscopic acceleration as seen in the equation below:

Fn = ma

(where  $\mathbf{Fn} = \mathbf{Newtonian}$  force,  $\mathbf{m} = \mathbf{the}$  mass of a moving particle and  $\mathbf{a} = \mathbf{acceleration.}$ )

In other words, Newton posited a cause (force) for the observed accelerated movement of a massive body but failed to do the same for inertial movement. It remains that denying the causality of motion is tantamount to denying the principle of cause and effect. Hence, we are forced by logical necessity to posit the "existence" of another force to fully explain motion, both accelerated and inertial. Before we can do so, however, we must first define what we mean by motion. Note that I put "existence" within quotes. This is because force is really an abstract concept. At the fundamental level it is all about particles, properties and interactions.

#### **Discrete Universe**

In order to understand the nature of motion it is first necessary to confront yet another fallacious concept in physics called continuity (infinite divisibility). It is a concept that scientists, especially mathematicians, hopelessly cling to in spite of its being blatantly illogical. This belief has led to the introduction of the theory of general relativity which postulates a geometric solution to the phenomenon of gravity and introduced such harmful concepts as the existence of a spacetime continuum (note 1) and the curvature of said spacetime. Truth is, continuity is wrong simply because it leads to an infinite regress. Nature is discrete and, as a result, particles move in discrete steps, i.e., their positions change from one discrete value to another. Discreteness means that there exist only discrete positional properties and that things like lines, circles, curves, surfaces, angles, etc... are all abstract concepts. The old debate between Euclidian and non-Euclidian geometries about whether or not parallel lines meet becomes immediately pointless (not to mention stupid) since both wrongly assume the existence of lines and other continuous structures.

Note that, in this light, when physicists speak of an object in inertial or accelerated motion, they are always referring to Newtonian or macroscopic motion. However, smooth macroscopic motion is an illusion of the senses. To repeat, in a discrete universe, a body moves by making discrete jumps, i.e., its position changes by discrete fundamental quantities. Causality requires that a jump must be caused by an interaction between two particles. Ideally speaking, we can say that the duration of a jump is the same as the duration of the interaction and that the more energetic the interaction, the

faster the jump. In the same vein, we can say that, if a body is in inertial motion, all of its jumps have equal durations. Assuming that all jumps happen across a fundamental discrete distance (abstractly speaking, see <a href="below">below</a>), we can further say that the jump duration of a faster moving body is shorter than that of a slower one. Acceleration can thus be seen as a change in the jump duration of a particle. (In a future page, I will explain exactly what happens to a particle internally when it is being accelerated).

#### **Probabilistic Universe**

The above line of reasoning is fine for most intents and purposes but this is not what really happens. In truth (this is explained further below), we can only speak of one jump (interaction) duration, a very minute interval, probably on the order of 10^-44 second (see note 2). That is to say, all particle jumps have equal durations regardless of the observed macroscopic speed of the particle. This is a rather counterintuitive concept to grasp but the truth is that there is only one speed in nature and that speed is c, the speed of light (I will explain why later). Nothing can move faster or slower! How can this be since we observe bodies moving at various speeds? The answer is that what we observe are macroscopic speeds, the result of countless jumps and rest periods between the jumps. Since nature cannot calculate exact durations for interactions, it is forced to use the only possible alternative: probability. What this means is that the timing of jumps or interactions is probabilistic, such that, given a particle in inertial motion, the average interval between all positional jumps during a sufficiently long travel segment (t2 - t1) will be equal to that of another sufficiently long travel segment (t4 - t3) for the same particle or some other particle moving at the same inertial speed. For purposes of clarity, however, it is beneficial to assume that the jump durations of a particle in inertial motion are equal over the duration of the movement. Over time, the arithmetical results of this convention are accurate enough for most purposes.

Contrary to the deterministic doctrine that is being preached in certain quarters (e.g., <u>digital physics</u>), a discrete universe is necessarily a probabilistic one. By the way, the universal interaction interval is also the reason for the probabilistic decay of certain subatomic particles.

#### **Inertial Force**

Once it is understood that, at the microscopic level, motion occurs in discrete jumps, it follows that motion is non-inertial at that level. In other words, a jump is a change in speed, i.e., an acceleration. In spite of the chauvinistic posture of modern physicists, Aristotle was right in his conjecture that it takes a cause to move a body and that the natural state of everything is absolute rest. That is to say, it takes a force to accelerate a particle during a jump from absolute zero to c but no force is needed when the particle's speed reverts back to zero. To repeat, during a jump, a particle's speed changes from absolute zero to c. It is all acceleration. In keeping with our earlier convention (see above paragraph), we can define the inertial force in Newtonian terms as follows:

Fi = ma

(where, Fi is the inertial force it takes to accelerate a particle of mass m; a is the acceleration from zero to v over interval dt and distance dx. dt is the average time between jumps; dx is the fundamental distance; and v is the Newtonian speed of the particle.)

The above is not meant to be set in stone since the Newtonian approach of using abstract entities based on macroscopic observation is not necessarily conducive to good physics. I will revisit fundamental concepts like minimum distances and temporal intervals in a future addition to the site.

#### The Lattice

The immediate consequence of positing an inertial force is that, since force requires energy, it follows that, in order to account for the observed movement of bodies, we must postulate the existence of an immense energy field in which everything moves. My hypothesis that this field is organized as a regular, crystal-like, 4-dimensional lattice of

highly energetic particles is corroborated by the Biblical text, as we shall see later. The primary purpose of the lattice is to serve as a causal substrate (source of interactions) for movement. Were it not for the lattice, nothing could move. Consequently, we are immersed in energy, lots of it! I anticipate that, in the not too distant future, we will learn how to use the lattice for propulsion and energy production (yes, free energy and all that!). But before we can do so we must get a good understanding of the properties of the lattice particles and how they interact with normal matter. My thesis is that the key to understanding these properties is in the Bible!

#### **Absolute Universe**

According to relativists, all positions and movements are relative. As I explain <u>elsewhere</u>, the exact opposite is true: every property in the universe is absolute. The relative is abstract. Sir Isaac Newton tried his best to explain this truth in his writings but, for some strange reason, it fell onto deaf ears. Newton's primary mistake in this regard is that he believed absolute space to be an existing physical entity.

## **Illusion of Space**

According to most physicists, there is a physical space in which we exist and move but, in reality, there is <u>no space</u> at all. Space (i.e., distance) is an illusion of perception. The physical universe consists only of particles, their properties and their interactions. Everything else is either abstract or superstition. Even position is an intrinsic variable property of particles. Movement is just a change in a positional property and distance is abstract, being the vector difference between two positions. Certainly, we can speak of an abstract infinite space consisting of all possible positions and describe certain phenomena in terms of movement within this space but it is essential that we refrain from thinking of it as an existing entity and from ascribing physical properties to it, à la Einstein. Space is one of those laughable concepts of science that are nevertheless "surrounded with an aura of excellence". Paul Feyerabend is smiling in his grave.

#### **Abstract Time**

Most people would be surprised to learn that nothing can move faster or slower than the speed of light. The reason is that time is abstract, i.e., it does not exist physically. Our concept of time is a perceptual illusion which stems from the way the human brain records past events in memory and anticipates future ones. We intuitively assumes that time is something that is continually changing from the past into the future. The truth is that time cannot change at all. There is neither past nor future nor any travel toward the future or the past; there is only the present. Time is abstract because a physical time dimension would make motion impossible. This is counterintuitive, I know, but do not take my word for it. I give the reasons elsewhere on this site. Check it out for yourself. However, this does not prevent us from mathematically deriving an abstract, discrete fundamental interval from the observation of change. So why does an abstract time necessarily mean that nothing can move faster or slower than the speed of light? The answer is that, since time does not exist physically (i.e., time is not a physical property anywhere in the universe), interaction intervals cannot be calculated. An interaction either happens or it doesn't. So nature has no alternative but to use probability to decide which interactions to allow based on the severity of the violations. Since there is only one fundamental interaction interval and since motion is the result of interactions, everything moves at the same speed, the speed of light. Macroscopic speeds that are observed to be less than that of light actually consist of jumps interspersed with rest periods. The fundamental interval is the shortest possible discrete interval and, as such, it imposes an upper macroscopic speed limit on moving bodies.

## **Yin-Yang Universe**

Everything is made of <u>nothing</u>. Any alternative leads to an infinite regress. Nothing is the sum of everything that is positive and negative. Nature always tries to balance the positive and the negative properties of the universe in order to conserve nothing. Change is thus nature's way of correcting a violation. The correction of a violation is what I have been calling an interaction. The result of a correction is always a change in

some intrinsic properties of the particles involved.

To be continued...

## **Bible Physics**

Most scientists consider the Bible to be a collection of fables and superstitions. Even Christians and Jews would be astonished to learn that the Bible contains precise and revolutionary secrets pertaining to science. One reason for this mindset is that the Bible goes to great lengths to hide its scientific truths through the use of mysterious symbols and metaphors. Worse, the secrets are not recorded in a single book, nor were they written down by a single author. Part of a concept may be given in one book while the rest is found in another book written centuries later. As many of my readers already know, I am already well on the way to decoding the <a href="symbolic passages">symbolic passages</a> that describe the organization and operation of the brain. These will lead to the construction of highly intelligent robots and artificial brains. The introduction of human-level (and beyond) artificial intelligence in the world will be revolutionary in its own right but, as I explain in these pages, there are aspects of the underlying physical universe that, should they become known to us, would be equally revolutionary. These things are described in the Bible, more specifically, in the books of Isaiah, Ezekiel and Revelation.

#### The Heavens

Part of my thesis is that the Bible not only reveals the existence of the <u>lattice</u> (i.e., *the heavens*, not to be confused with *Heaven*, the abode of God), but also describes the properties of its constituents (<u>seraphim</u>). It is important to understand that the lattice is what makes motion possible and thus, its creation must precede that of normal matter. Indeed, the very first verse of the book of Genesis says exactly that:

In the beginning, God created the heavens (lattice or energy field) and the earth (normal matter).

Note the implied order of creation. This, of course, squarely contradicts the so-called big-bang theory of modern physics but that is another story for a future page. There are numerous passages in the Old Testament where God is said to have *stretched out* the heavens like a veil or the fabric of a tent. The books of Revelation and Ezekiel are a lot more precise, calling it a great expanse and comparing it to a sea of glass, like crystal, in order to explain its highly regular structure.

#### Seraphim

Seraphim (the burning ones) are first mentioned by the prophet Isaiah. He describes a strange vision of creatures having six wings (Isaiah 6:1-3):

In the year that King Uzziah died, I saw the Lord sitting on a throne, high and lifted up, and the train of His robe filled the temple. Above it stood seraphim; each one had six wings: with two he covered his face, with two he covered his feet, and with two he flew. And one cried to another and said: "Holy, holy, holy is the Lord of hosts; The whole earth is full of His glory!"

Seraphim are also mentioned in the Book of Revelation (Rev 4:6-8). John calls them "living creatures" but it is obvious, given the context, that he is referring to the same seraphim that Isaiah wrote about centuries before. Only, John adds more details (four faces and many eyes, similar to the ones described in the book of Ezekiel with regard to <a href="https://cherubim">cherubim</a>) to the picture:

And before the throne there was something like a sea of glass, like crystal; and in the center and around the throne, four living creatures full of eyes in front and behind. The first creature was like a lion, and the second creature like a calf, and the third creature had a face like that of a man, and the fourth creature was like a flying eagle. And the four living creatures, each one of

them having six wings, are full of eyes around and within; and day and night they do not cease to say, "Holy, holy, holy is the Lord God, the Almighty, who was, who is and who is to come."

I hypothesize that seraphim symbolize the energetic particles that comprise the lattice. I further hypothesize that the four faces are physical properties associated with the four dimensions (positional degrees of freedom) of the universe (nope, time is not a dimension). Take a look at the <a href="Seraphim page">Seraphim page</a> where I explain the physical meaning of the four faces, the feet, the eyes and the six wings. The meaning of Isaiah's vision regarding the organization of the six wings into three pairs will prove to be particularly eye opening because (among other things) it directly contradicts one of the cherished tenets of the special theory of relativity. Suffice it to say for now that these strange symbols represent specific physical properties and behaviors. Note that Isaiah mentions something else besides eyes, wings and faces: feet. This, too, is a very important metaphor.

#### Cherubim

Cherubim are described in the old testament book of Ezekiel. The prophet receives a strange vision of four creatures, each having four faces, four wings, human hands and calf's feet. In addition, he describes an enormous flying wheel that had the appearance of a wheel within a wheel. There is reason to believe that Ezekiel's cherubim are related to the seraphim described in the books of Isaiah and Revelation because Ezekiel also mentions a throne and an immense sea of glass. There is a strong similarity between cherubim and seraphim. They all have wings, faces, feet and are full of eyes. The differences are equally striking. For example, cherubim have two attributes that seraphim lack: bodies and hands. And while a seraph has one face and six wings, a cherub has four faces and four wings. My current hypothesis is that the four cherubim of Ezekiel symbolize an ideal composite particle, possibly an angelic (i.e., alien) particle. The known subatomic particles (e.g., neutrons, protons, electrons, etc...) of quantum physics can be described as either single cherubim or various combinations thereof. I am preparing a special page on cherubim. More to come...

## Consequences

Based on my current understanding of the Biblical texts, especially the passages in Isaiah and Revelation that describe the seraphim (or living creatures), I can confidently say that we will soon have technologies that will allow us to propel bodies of almost any size or mass at prodigious speeds. Our spacecrafts will perform maneuvers (such as making right angle turns at extremely high speeds) that we now consider physically impossible. Better yet, we will do so while using no conventional sources of energy or propellant. The promise is that of a fast moving world where energy is free and unlimited. It is not hard to imagine how society will be transformed by these technologies. As with any powerful technology, there will be good uses and bad uses. Below are some of the changes that I foresee.

#### Free Energy

Current energy production (power plants), storage (batteries and fuel cells) and distribution technologies (power grid) will be quickly superseded. Every home will be energy self-sufficient and will have its own compact, self-contained power generation unit. An ecological and economic windfall will follow. Developing nations will no longer depend on imported oil or have to use charcoal and wood for fuel. This will lead to the regeneration of denuded tropical forests. Air pollution and greenhouse gases will be a thing of the past. Hydroelectric dams will be dismantled and the flooded fields will be reclaimed for agriculture or wildlife sanctuaries. Since oil prices will plummet, oil-producing nations will no longer be able to generate income from their stockpile of oil. This will create a dangerous shift in the balance of economic power around the world which will likely lead to catastrophic wars. Some of these nations will see no way out but to invest their fast dwindling wealth into acquiring military power based on the new

technology.

## **Fast Transportation**

All current ground, sea, air and space transportation systems will become obsolete. This means there will no longer be a need for things like combustion engines, wheels, tires, rockets, railroads, transmissions, brakes, propellers, sails, airports, paved roads, highways, bridges, traffic signals, etc... As a result, transportation related industries will have to undergo a severe transformation in order to adjust to the new reality. Future vehicles will go almost anywhere with no visible means of propulsion and they will make no sound as they move. They will be able to do so at extremely high speeds. Even right angle turns will be negotiated at high speeds. Inertial effects will not be felt because every atom or particle that comprises a vehicle and its cargo will undergo equal acceleration. This means that moving vehicles will be able to come to a full stop within a fraction of a second without incurring any damage. City dwellers will use small personal devices (flying chairs?) to float around effortlessly. Normal walking will no longer be a necessity.

## Floating Cities

Many buildings and even entire cities will float in midair and, in the event of inclement weather, will rise out of harm's way. Many people will choose not to live in cities at all, preferring instead a nomadic lifestyle. Indeed, why live in a fixed apartment if the entire apartment can move almost anywhere. Many inhabited outposts will be built in outer space and on off-world bodies such as the moon, Mars or Jupiter's moons. All heavy industries will be moved off the surface of earth to minimize pollution and accidents. Most of the accessible planetary bodies in the solar system, including asteroids, will be mined for minerals. International disputes will flare up with regard to the administration, ownership and mining rights of space resources.

## **Big Brother**

Given the potential of the new technology for abuse, governments will find it necessary to impose strict control over its use. All vehicles intended for public transportation will have to be either self-operating or severely restricted so as to prevent accidents and unauthorized uses. Electronic-enabled, invisible highways will have to be installed in order to automatically guide vehicular traffic along approved routes. However, the simplicity of the new technology means that almost anybody will be able to conduct experiments and build powerful and dangerous machines in their own homes or backyards. Governments will be forced to enact stringent new laws against private experiments and impose severe penalties for unauthorized use. Somehow, I doubt that any regulation will stop people from tinkering with gadgets on their own. Worse, there are those who will immediately start building automated delivery systems for weapons of mass destruction since distance and international borders will no longer be a deterrent. Authorities will have to rely heavily on widespread surveillance technologies to maintain security.

## Wars and Rumors of Wars

The nations of the world will waste no time seeing the military implications of the new technology. The powers that be will use the new science to develop extremely powerful offensive weapons and sophisticated countermeasures for their own protection. Many weak and poor nations will become strong and rich. Countries like the US, Russia, Brazil, India, Japan and China will become much more powerful than they already are both economically and militarily. The more powerful nations will find themselves under tremendous pressure to preemptively strike their weaker enemies before the latter can have time to build up their military arsenal.

#### Conclusion

#### **Brave New World**

We are about to enter an age that is both dangerous and promising. The short term outlook is very bleak indeed. Global disaster looms menacingly on the horizon. Will we survive? Will we acknowledge the sacred source of the new science and change our ways? One thing is certain, whatever happens will not happen overnight but it will happen very fast. I hope I am wrong but my understanding of Biblical prophecy leads me to think that, at the last minute, the world will be rescued from its collective madness and the brink of disaster but not before going through a brief period of intense tribulation. After that, utopia.

Next: Seraphim, the Burning Ones!

(1) It is interesting to note that, close to the end of his life in 1954, Einstein wrote to his friend Michele Besso: "I consider it quite possible that physics cannot be based on the field concept, i.e., on continuous structures. In that case nothing remains of my entire castle in the air, gravitation theory included, [and of] the rest of modern physics."

From: "Subtle is the Lord" by Abraham Pais.

(2) 10^-44 second is approximately the <u>Planck time</u>. Some people believe that the Planck time is the fundamental discrete interval. I personally have my doubts because it was obtained through dimensional analysis involving <u>Planck's constant</u>, the speed of light and the <u>gravitational constant</u>. I have an idea to derive the fundamental interval directly from Planck's constant, the neutron's half-life interval and the speed of light but I need to think it through.

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# Seraphim, the Burning Ones

# **Shaking the Foundations of Physics!**

(Under Construction) Last update 5/1/2007



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**Abstract**: In this page I argue that the Biblical term *seraphim* is a metaphor for the energetic particles that comprise an immense particulate sea mentioned in the books of Isaiah, Revelation and Ezekiel. The sea is transparent (compared to *glass* in Revelation) and organized as a highly regular (crystal-like) 4-dimensional lattice. Its primary purpose is to serve as a substrate for the movement of matter particles. The entire 3-dimensional visible universe is continually moving in the lattice at the speed of light in one of the four dimensions. As it moves, the interactions between normal matter particles and lattice particles give rise to electrostatic phenomena. The motion of matter in the other three dimensions is responsible for magnetic phenomena. Gravity is a nonlocal, quasi-instantaneous energy conservation phenomenon and it is almost entirely due to the electrostatic interactions occurring in the lattice. Understanding the properties of the lattice particles and how they interact with normal matter and other lattice particles will allow us to develop revolutionary technologies for energy production and transportation. It is possible to gain a precise understanding of the properties of lattice particles by examining several metaphors found in the Biblical texts.

#### Introduction

Seraphim comprise the source of energy that keeps everything in the visible 3-D universe moving. Without seraphim, everything would come to a complete halt. They are the constituents of an immense 4-dimensional sea or particulate lattice that surrounds us all and is responsible for all gravitational, electrostatic and magnetic phenomena. At

each position of the lattice, there is a huge number of seraphim for every possible energy level up to a certain limit. Initially, the lattice particles are at absolute rest. Once they become dislodged as a result of an interaction with another particle (either a normal matter particle or another lattice particle), they continue to move through the lattice at the speed of light. The full purpose of the lattice cannot be <u>groked</u> (thanks, Heinlein) unless one first understands the need for a fourth spatial dimension in which the entire visible matter of the universe is moving at the speed of light in one direction. Please read <u>Physics From the Bible</u> and <u>More Nasty Little Truth About Physics</u> before continuing.

## **The Fourth Spatial Dimension**

I remember being intrigued, years ago, by a strange Biblical passage having to do with something Jesus is reported to have said (John 8:56-58):

Your father Abraham rejoiced to see my day: and he saw it, and was glad. Then said the Jews unto him, thou art not yet fifty years old, and hast thou seen Abraham? Jesus said unto them, verily, verily, I say unto you, before Abraham was, I am.

I was immediately struck by the seemingly awkward but deliberate use of the present tense "I am". How can Jesus claim to be in the past? Was he talking about time travel? I doubt it very much since time travel is crackpottery. There is no such thing as a time dimension in which we are moving in one direction or another. So was it a simple grammatical mistake on Jesus' or John's part? That, too, is unlikely given the big spelling and pronunciation difference between the declinations of the verb "to be" in both the original spoken Aramaic and the subsequent Greek renditions. I was baffled. It took me several years but eventually I hit upon the idea that Jesus was not talking about a time before Abraham but a place! In other words, he (Jesus) exists (present tense) at a place before the place where Abraham was. Only then could the use of the present tense (I am) make sense. Of course, Jesus could not have been referring to his human self since his human body could be clearly seen by the people he was talking to. He was talking about his divine body, in heaven. It was his way of saying that we live in a four-dimensional universe and that his throne is in a place (i.e., heaven) that cannot be found anywhere in our 3-D slice of the universe. As we shall see below, we (and the entire visible universe) are moving along the fourth dimension in one direction only, the opposite one from *heaven*. The properties of normal matter particles are such that they cannot move in the other direction.

#### Motion in the Fourth Dimension

The idea that we exist and move around in a four-dimensional sea of energetic particles is enticing because it explains things like gravity, electromagnetism and the self-energy of electrons without having to invent voodoo nonsense like virtual photons, gravitons or a spacetime continuum. Initially, I had thought that the sea (or lattice) was only 3-dimensional. The problem with having a 3-D lattice is that it quickly becomes depleted as interactions dislodge particles from their initial positions. It turns out that the only way to replenish the lattice is to posit that it is 4-dimensional and that the visible universe is moving in one direction in the fourth dimension at the speed of light. This way, a fresh full supply of energetic particles is encountered at every fundamental interval. Lattice particles are jettisoned from the points of interactions giving rise to electrostatic fields. As I will show later, movement at c in a four dimensional lattice also explains gravity. Another astonishing consequence of this fourth dimensional motion is that interactions leave "holes" or "blanks" in the lattice where lattice particles have been dislodged. In other words, the history of the entire universe is continually being recorded in the lattice, down to every minute detail! This gives credence to ancient myths regarding the so-called Akashic records. It brings to mind something Jesus is reported to have said to the effect that everything that was done in secret will be revealed for everyone to see. The concept of resurrection also makes sense in this light since the entire information needed to reconstruct the body of a dead person (or a dinosaur for that matter) is faithfully recorded in the lattice.

## **Intrinsic Properties**

Seraphim is a plural Hebrew word that means the burning or shining ones. This is rather appropriate since seraphim are pure (massless) energetic particles responsible for all electromagnetic phenomena including magnetic and electrostatic fields and, of course, light. Seraphim are simple, elementary particles with a small number of properties. They are described metaphorically in the books of Isaiah and Revelation:

#### Isaiah 6:1-3

In the year that King Uzziah died, I saw the Lord sitting on a throne, high and lifted up, and the train of His robe filled the temple. Above it stood seraphim; each one had six wings: with two he covered his face, with two he covered his feet, and with two he flew. And one cried to another and said: "Holy, holy, holy is the Lord of hosts; The whole earth is full of His glory!"

#### Rev 4:6-8

And before the throne there was something like a sea of glass, like crystal; and in the center and around the throne, four living creatures full of eyes in front and behind. The first creature was like a lion, and the second creature like a calf, and the third creature had a face like that of a man, and the fourth creature was like a flying eagle. And the four living creatures, each one of them having six wings, are full of eyes around and within; and day and night they do not cease to say, "Holy, holy, holy is the Lord God, the Almighty, who was, who is and who is to come."

In all, seraphim have five intrinsic properties (note 1): faces, wings, feet, eyes and position. Please refer to the verses above as I discuss each property below. All particle properties are associated with one or more of the four dimensions (degrees of positional freedom).

#### **Faces**

The face of a particle is its absolute orientation in one of the four dimensions. The closest equivalent in modern quantum physics is the so-called spin of a particle. The books of Ezekiel and Revelation use precise symbols to label the four dimensions: lion, calf (or bull) human and eagle (note 2). Each dimension has two directions, positive and negative. To put it another way, a particle can face either forward or backward in a given dimension. So, even though a particle can have no more than four faces, it can have up to eight orientations altogether, four positive and four negative. Note that a seraph has only one face (i.e., two orientations which corresponds roughly to the two spin states of a photon in quantum physics), whereas normal matter particles can have more than one (more on this in a future page on *cherubim*). It is important to keep in mind that faces imply absolute orientations or dimensions. This is in sharp contradiction with one of the postulates of the Special Theory of Relativity according to which there are no preferred (absolute) frames of reference in nature. The orientation of a particle's face determines how it interacts with other particles. There is more to faces than what quantum physics suggests, however. One of the faces in particular, the one associated with the fourth dimension, has to do with electrostatic charge polarity. More on interactions later.

#### Wings

Wings and feet are metaphors for types of kinetic energy (note 3). Seraphim have wings and feet (kinetic energy) but no bodies (mass energy). Initially, seraphim are at rest in the lattice because they are not interacting with anything. Once they are set in motion as a result of an interaction, they will continue to move at the speed of light. Moving at c means that there are no rest periods between the jumps while they are moving (see <a href="Discrete Universe">Discrete Universe</a> for more on the nature of motion). Wings, like faces, can be either positive or negative depending on the direction of motion. My understanding of the wing metaphor gradually evolved over the years, as seen below.

## The Missing Wings

I remember being delighted, many years ago, when I first came across the metaphors of the living creatures in the book of Revelation. At the time, I had assumed that they were equivalent to the photons (not quite correct, as it turned out) of modern physics. I reasoned that the six wings were used for movement within the lattice: two wings (positive and negative) for each of the three familiar spatial dimensions (or directions). There was one problem, though. My hypothesis called for movement in the fourth dimension as well. This is the only way to explain the self-energy of the electron and other electromagnetic phenomena without using virtual (i.e., voodoo) particles a la quantum physics. In my mind, I needed eight wings but Revelation mentioned only six! Two wings were missing! I was stumped. I decided to put the whole thing on the back burner, so to speak, determined to revisit it at a later date.

#### Two Wings Dilemma

I realized soon afterwards that my original conjecture that each dimension was assigned a pair of positive and negative wings was flawed. It seems more plausible that only a single wing is needed for movement in any dimension. Said wing could be either positive or negative and its value would determine the particle's speed in that dimension. However, this meant that a particle would only need four wings, not six. This was getting way too complicated for my taste. Obviously, I was missing something important. It was not until years later that I noticed the connection between Revelation's living creatures and the seraphim of Isaiah. That is when I found out that the creatures also had feet, exactly what the doctor ordered! It was clear to me: the lattice particles must be using wings to move in the three familiar spatial dimensions and feet to move in the fourth dimension. Just when I thought I had figured it all out, another problem surfaced. But why six wings? Why not only three? Worse, Isaiah's vision added yet another mystery: wings are organized in pairs, each having a specific configuration but only two wings are used for movement! In other words, the motion of a lattice particle was limited to an absolute 2-D plane! How can this be, I thought? Photons can certainly move in any direction. I was facing a dilemma. Either Isaiah was wrong or I had to throw away my photon/seraphim equivalency hypothesis. I chose the latter.

#### **Wavicle Voodoo**

I had concluded, long ago, that the modern concept of a photon as a "wavicle", i.e., a point particle that can nevertheless have a frequency and a wavelength was nonsense. In other words, how can something be a point and still have size? This is the sort of voodoo science coming from the physics community that drove me to erect this <u>site</u> in the first place. Of all the fields of science, only physics can get away with such blatant crackpottery. What physicists call a photon is actually a huge number of energetic particles traveling together. Their energy distribution is such that they form a transverse wave front at the macroscopic level. My hypothesis is that these energetic particles are seraphim.

#### Cascading Seraphim vs. Photons

The problem that I faced would not go away. How can I reconcile the fact that light is observed to move in a straight line in any spatial direction with the revelation in the book of Isaiah that seraphim moved only in absolute 2-D planes? It then occurred to me that the answer lied in the realization that seraphim interacted with other seraphim in the lattice as they moved. How could they not since nothing can move without an interaction? Seraphim are no exception. The motion of a lattice particle induces the motion of other particles in the lattice resulting in a cascading effect, more like a spreading wave. This explains the observed diffraction of light whereby light appears to bend around corners. I remember jumping for joy when this idea first surfaced in my mind, seemingly out of nowhere. Isaiah's wing pairs began to make sense. But even more exciting was the sudden feeling I had that this

was much more important than it seemed at first glance. I will have more to say on cascading particles in the <u>interactions</u> section.

#### Absolute Planes vs. Frames of Reference

Soon after the meaning of Isaiah's vision of the wing pairs began to crystallize in my mind, I got to thinking that the peculiar plane-restricted motion of lattice particles could be exploited for practical purposes. I occurred to me that there are three such planes in our familiar 3-D space. Since the earth's north-south rotational axis is fixed, it must be at a fixed angle with respect to any of the three dimensions. This could be used to set up alignment markers with respect to the true north (or south) pole. The markers could then be used for alignment purposes (note 4). I suspect that ancient civilizations such as the great pyramid builders understood this. I hypothesize that the particles of normal matter (say, a stone) could be made to face in the three absolute directions (in modern physics parlance, their spin directions would be changed to specific values) using electrostatic means. Subsequently, a slight rotation of the stone could theoretically induce a force on the particles and accelerate them in a specific direction. That is to say, the stone could be made to levitate by exploiting the energy in the lattice. I am still working on this but it is worthwhile to note that, should this experiment work, it would (besides starting a technological revolution) refute one of the more cherished tenets of Einstein's special theory of relativity which stipulates that there are no preferred frames of reference in the universe. Are they in for a shock! More to come...

## **Feet**

Feet, like wings, is a metaphor for kinetic energy. And, like wings and faces, they can be either positive and negative. It just so happen that all particles of normal matter, including seraphim, have positive feet. I define positive as the direction in which all particles are currently moving in the fourth dimension. This means that we cannot move in the other direction, even if we wanted to. However, this does not necessarily imply that there are no particles in the universe that can move in both directions. There is indication in the Bible that some beings can move in either direction.

## **Deterministic Interactions**

Wings are for flying and feet are for walking. This sounds trite but the question is, what is the symbolic difference between the two? I think that feet are used when an interaction must always be deterministic. This is the case with movement in the fourth dimension. It is imperative that all moving particles always have equal fourth dimension coordinates so as to remain in a line of sight from each other, so to speak. That is to say, all particles must be inside the same 3-dimensional slice as they move in the fourth dimension. There can be no slippage whatsoever, not even for a moment, otherwise things would suddenly disappear from view. Thus I surmise that the feet are there to force the jumps, regardless of the conditions. As seen in the paragraph below, this can lead to energy conservation violations which must be corrected.

## The Cause and Speed of Gravity

A problem arises when more than two particles have equal positions. This is something that is bound to happen, especially in large matter concentrations such as stars and planets where huge numbers of particles are flying around. In such situations, there is not enough energy in the lattice to effect all the jumps in the fourth dimension. In order to force the jump, the feet must "borrow" the energy momentarily, so to speak, thereby creating an energy imbalance. Gravity is nature's way of balancing things out. Contrary to modern physics dogma (general relativity), gravity does not propagate. It is a nonlocal phenomenon. Any electrostatic imbalance created by interacting particles is instantly felt everywhere in the visible 3-D universe because all

visible particles have equal coordinates in the fourth dimension. Thus Newtonian gravity is correct in its assumption that gravity is instantaneous. It is important to note that, according to this hypothesis, all particles may contribute to gravity, not just particles with mass. Note also that it is not the particles per se that cause gravity but the imbalance caused by particle interactions. More on this in a future page.

## **Eyes**

#### Nonlocality

Eyes have to do with sensing phenomena at a distance. I interpret the metaphor of the creatures being full of eyes to signify that they can sense everything in a nonlocal (i.e., nonspatial) fashion. That is to say, everything in the universe is connected because the universe is one and distance is abstract. Oneness, i.e., the conservation of nothing, must be maintained, that is to say, any imbalance or violation must be corrected at the earliest opportunity. Normally, an imbalance is corrected by a simple jump: if two particles come together, they may cause a violation which is corrected by a normal jump. This is what I define as an interaction. Sometimes, as seen in the case of gravity above, the violation cannot be corrected at the point of interaction and must be addressed non-locally.

#### **Position**

We know that seraphim have positional properties because Isaiah wrote that they can fly, i.e., move. As I explain <u>elsewhere</u>, position is an intrinsic property of particles and not the property of an extrinsic space. Space is abstract, i.e., it does not exist physically. Since there are four degrees of freedom, the position of a particle is thus made of four properties which represent the absolute and variable coordinates of the particle. Like every other property in the universe, position is discrete. The difference between two adjacent positions is the fundamental abstract distance or length, an extremely small quantity, relatively speaking.

#### **Quantum Physics Parallels**

I have already mentioned the similarity between the *face* metaphor and the spin of a particle in quantum physics. Of course, spin is a misnomer since particles do not really spin or rotate. This is something that Ezekiel mentioned several times when describing the movement of cherubim:

#### Ezekiel 1:9

Their wings touched one another. The creatures did not turn when they went, but each one went straight forward.

#### Ezekiel 1:12

And each one went straight forward; they went wherever the spirit wanted to go, and they did not turn when they went.

There is no reason to suppose that seraphim are the exception to the rule. Physicists apparently came up with the spin idea because they noticed that particles accelerated at right angles during certain collisions. What they failed to realize is that rotation assumes that nature is continuous and that particles have size. The truth is that everything is discrete and particles have no size. The right angle acceleration is due to the intrinsic properties of the particles such as wings and faces. These are associated with the four dimensions which can be said to be at right angles to each other. In the case of seraphim, the three pairs of wings act along two-dimensional planes which are perpendicular to each other.

## **Seraphim Interactions**

What follows is my current understanding of seraphim properties and how they contribute to interactions. It is subject to change.

An interaction is the correction of an imbalance. It is due to a violation of the mother of all conservation principles, the conservation of nothing. An interaction occurs every time the non-zero equilibrium of the universe is broken in one or more of the four dimensions. The violation must be corrected at the earliest opportunity. As I mention elsewhere, since the durations of all interactions are equal to a fundamental interval Tc, and since nature cannot calculate precise durations based on the severity of the violations, it has no recourse but to use probability to time the interactions. This is the reason for the probabilistic decay of certain composite particles. What is important is that, in the end, the universe's overall equilibrium is maintained. Over the long run, the average interval Tav between jumps reflects the strength of the interactions. The shortest possible average interaction interval Tmin is that of particle which is continually moving at the speed of light: Tmin = Tc. Below is a short list of rules (as per my current understanding) to keep in mind as you read this section on Seraphim interactions:

## **Energy Conservation**

The total energy of a seraphim always stays constant (note 5). This means that, if the energy of a particle's wing changes as a result of an interaction, the energy of one or more of the other wings must change to conserve the particle's total energy.

## **Common Properties**

A seraphim may interact with another seraphim only if the two have equal energies and similar faces or feet.

#### **Speed**

It goes without saying that the kinetic energy of a lattice particle is not what determines how fast it moves (on average) since all seraphim, regardless of their energy, move through the lattice at the speed of light. In order for a lattice particle to move at c, it must continually interact with other particles of equal energy. Since seraphim can only interact with other seraphim of equal energies, they always move at c in the lattice. However, this is not the case for massive particles (note 5). Unless the entire mass energy (body) of a normal particle is converted to kinetic energy (wings), its average speed will be less than c since only a fraction of its overall energy is used for movement. The formula for calculating the average speed of a massive particle is this: speed = (kinetic energy / total energy) \* c.

#### **Electrostatic Interactions**

In my hypothesis, the electrostatic field of a charged particle (e.g., the electron) is the result of interactions caused by the motion of the particle in the fourth dimension. The field consists of a huge number of seraphim being jettisoned from the points of interaction in the lattice. The property that is responsible for the fourth dimensional (note 6) motion of a particle is its *feet*. Note that there are two wings associated with a seraph's feet and that, even though all seraphim have feet, they do not all have similar faces.

#### **Magnetic Interactions**

The magnetic field of a charged particle is due to interactions caused by the motion of the particle in one or more of the three familiar spatial dimensions.

#### Light

To be continued...

## Conclusion

To be continued...

- 1. Note that normal matter has two extra properties not shared by seraphim. They are bodies and hands. These are mentioned in Ezekiel's vision of the four living creatures (cherubim). I will discuss these in a future page on cherubim.
- 2. This is important because these symbols were apparently known to a few ancient civilizations. The Sphinx (east-facing lion) lying on the east side of the great pyramid of Egypt is a case in point.
- 3. There is another type of energy symbolized by *body* (or mass energy) in the book of Ezekiel. Seraphim have *wings* and *feet* but no bodies. In other words, they are what physicists would call pure energy particles. I will explain the precise difference in a future page on cherubim.
- 4. Here is an exciting thought. Could it be what the <u>Nazca lines</u> in Peru were designed to be: alignment markers?
- 5. This is true even for massive particles. At rest, a massive particle has no kinetic energy. Its entire energy is contained in its body (mass energy). As it moves, part of its mass energy is converted into kinetic energy (wings). The average speed of a massive particle is less than c as long as it has mass energy. It reaches c when its entire mass energy is converted into kinetic energy. This will be explained further in the coming page on Cherubim.
- 6. I have reasons to believe that the fourth dimension is associated with the eagle.

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