

# Galaxies and Explosions in the Eternal Universe

Philosophical Model of the Universe

Olli Santavuori

Published in the homepage of Olli Santavuori 23.3.2020-26.3.2020

## Introduction

This model is developed in the Internet forums in dialog with other interested scholars and amateurs. Beginning of my initial invention in 1986 that the accelerating going away of the galaxies from the eyes of the observer happens because of the infinite – no edge – property of the universe. It does not mean the expansion of the space itself as the Big Bang- theory (BB) concludes and supposes. No one has been able to deny this proposal; only when based on the BB itself. No outside proof exists to refute the idea.

After that I have got many other philosophical ideas. Now I think that it is important to make difference between the local universe and the whole universe and handle them separately first. And abandon the concept of an observable universe for a while.

We know from the astronomy, that the galaxies form groups and chains and this is how the universe is in a very big area. How long, we don't know. What is farther away is only a hypothesis, and it is different in Steady State theory, in BB- theory, in Multiverse- theory, in this theory and in other theories. And there are almost void areas too, and quasars, and black holes in galaxies.

The whole universe is like this: *galaxies in chains in an eternal universe*. This is one way of interpreting the data we have. The astronomy has already solved the main problem of the cosmology: which kind of universe we have there in the space? This is one way to think it. This model states differently as others, that *this situation prevails eternally and everywhere*.

This way of thinking is possible because there are also eternally sometimes somewhere big and small *explosions*. Local Bangs, Multi Bangs. This is a simple solution to all the main problems of the cosmology, even when this is only a theory in the philosophical level, and it is not sure that this is right. Some other theory might of course still be better. And this is not a thoroughly formulated physical- mathematical theory. Only the time and space are understood, not the whole physics, which needs time (movement) and space and matter and energy and forces all together as it should be in the physics of the cosmology. But the whole philosophy and theology is ready as far as it can be understood nowadays. You can disagree, but this is one possibility of the alternatives. And from this philosophical theory follows some hypothesis that can be tested in astronomy. In normal multiverse- theory it is not possible. The other “universes”, part- universes, are not visible there. Some of the local universes are visible, if this theory is the right one.

Big explosions will be seen in the astronomy in the very moment an astronomer starts to think that way. Or this model is wrong. Every star is from some explosion.

### **The local universe**

The local universe is all the galaxies that stems from the same beginning as the Milky Way. It expands only so long as the explosion expands. General Relativity theory, GR handles all the happenings there in an enough manner, when all the forces are included that there really are. I mean the gravity, the electromagnetic forces and all forces what there happen to be, gravitation first as always. Without study we cannot know which galaxies belong to the local universe. They are not necessarily all from the same beginning. This is only the position of the BB. We should know the age of every galaxy, and the distribution of the galaxies, and we don't yet know these things exactly.

Time of the galaxies, stars and planets depends of the velocities of their movements. GR states that. Local universe, and every other local universe, begins in an explosion, then there is a big cloud, then the stars and planets form themselves, then the galaxies. Someday the galaxies and the black holes and quasars explode in some area, and everything begins again. (The quasars might be these explosions, at least some of them.) This explains the *entropy*. Everything begins again in this area. And the Bang points can be calculated to the place and time where the galaxies go younger and younger. This locality of our galaxies explains the *spectres* of most of the galaxies (from which the ages of galaxies are estimated), because we mainly see the local galaxies. Only them, says the BB and the Multiverse theory. But nobody has studied all the galaxies and the ages must be studied again.

### **Other local universes**

When we know which galaxies belong to which population, we can have some idea of which kind of different populations there is in the visible universe and farther away.

### **The whole universe**

If this theory is right, the whole universe is a **4D universe without time**. Space dimensions all four. The 4<sup>th</sup> is the infinite – no edge - property of the space. And the all- property of the space of the whole might mean that it has a fixed size.

This again:

*The universe has no beginning and not outside. It is infinite in the sense that there is no outside space and no edge, and finite because there is all the space.*

This verbal expression is an exact formulation of this whole thing: the space and time of the universe. Logically it cannot be in any other way. At least rationally this is sound thinking. Better than any other way of thinking. GR does not think like this, but here it can be wrong.

It can be put in mathematics in various ways.

4D is one possibility to say this mathematically.

The universe consists of innumerable local universes and we have no clue how big it is. We don't see the whole universe, but we might see some of the local universes. They merge with our local universe. There is whole the time clashes, merging of local universes, but the prevailing theory hinders us to see this, to understand what there happens. The chains of the galaxies fill whole the area of the whole universe.

Philosophers can better understand the universe as the physicists. Philosophy is the same as theoretical physics. But you don't have to turn whole time to the mathematics. This is totally or mostly a philosophical thing to understand which kind of the universe we have in the sky. Cosmologists deal too much with their observable universe, which is not so good concept as they think. The local and the whole are better.

This might be a revolution in philosophy too: something can be said of the universe from the logical point of view already. Normally nothing follows from the logic to the reality. Logic is only tautologies and concepts, nothing more.

The Multi Bangs everywhere eternally explains the *microwave radiation*.

The infinity – no edge – explains the *redshift*, the observable movements of the galaxies. Expansion is not real, it comes from the theory, the observation is the redshift. The observed, concluded, movements of the galaxies are real, and they depend of the properties of the space of the whole universe. It tells us which kind of the space of the universe we have there. (This is my big invention, but nobody ever understands this simple thing. That the no edge- property of the space already explains the redshift, the movements. Maybe it is not simple to everybody. Maybe we need to make a 4D animation of this, and this is missing, and this is what the people need.) You cannot go out of the space of the universe; everything just goes around and round. The space of everything is different of the space of a ball for example. But this is a ball- like entity. It maybe has a radius.

### **Biology of the universe**

Cosmology, at least astronomy is not only physics and geology, there are beings also in the stars and planets, humans and *flora et fauna*. And there might be gods, angels and aliens. If they have something to do with the cosmology, it depends of how much powers they have. We have no clue; this goes again to philosophy and now also to theology.

### **Theology of the universe**

We have no scientific knowledge of the gods.

But one thing is important to note. The theory of *creatio ex nihilo* is logically impossible; there has always been something, the whole universe is not created, has no beginning. Beginning and creating are organizing the existing, not creating from nothing. Nobody comes from the outside of the universe to create the universe, because the universe has not outside. This needs not any other proof: the universe simply has not outside, nothing can be created from void and there has never been and will never be such situation that anything at all does exist. Something is now, you cannot deny that. (Now is only time the universe has (this can be doubted)). You can speculate otherwise, but it is nonsense.

In the physics too, the singularity, whatever it is, is not a beginning of the whole universe. Only the local universes have their beginnings.

The eternal and infinite – no edge - universe is a materialistic and not an idealistic theory. It has nothing to do with religion, as so often has been said erroneously in discussions.

### **Summary**

The whole universe is chains of galaxies and explosions in an eternal universe. It has no time. Something can be concluded from the philosophical ground, rationally, and this must be taken in account in the empirical studies. It is imperative to differentiate between the local and the whole universe. We don't have observations of the whole universe; we can only make models and test them. From the other local universes we might have observations, because we see already billions of the galaxies.

It is not impossible to make a theory on the eternal and infinite ground. These terms just must be understood better and profoundly. For example: GR with the cosmological constant, Steady State, when modernized, or Multiverse, or DU (Dynamic Universe, T. Suntola), there we have ready theories for this frame.

Sources and thanks:

Thanks to *Louis Marmet* for critic to make my thoughts and arguments more clearly understandable.

All the arguments are in my homepage in books and articles in a more detailed way, but this is more developed.

Other sources are the other theories mentioned here and the normal textbooks of astronomy. My philosophy is epistemological realism.

Homepage: [www.santavuori.com](http://www.santavuori.com)

Moses 2:1. In the Book: Pearl of Great Price. Utah. (The creation story is from this earth and this haven (not from the universe.))

To refute *creatio ex nihilo* is not my own invention but the specific arguments here are. It is one classic Christian tradition, also in

Joseph Fielding Smith: Teachings of the Prophet Joseph Smith. Utah 1976 (p. 348 in Finnish edition)