

# The Discrepancy in Redshift Between Associated Galaxies and Quasars

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March 28, 2011

Rev. 3

April 25, 2011

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## Abstract

There is considerable evidence to suggest that many apparent quasar galaxy pairs, actually are pairs despite their difference in red shift. Therefore, the light leaving the quasar must be gravitationally red shifted at source. However, one might expect the quasar to be blue shifted relative to the galaxy in view of the truly gigantic amount of energy being released ejecting huge volumes of material at relativistic speed. The problem then is how to account for the difference, what mechanism is capable of turning a blue shift into a considerable red shift other than cosmological expansion? The answer is time or more precisely the rate of flow of time. A quasar alters the rate of flow of time in its locality by the following  $Rt = E/m + -ma$ . The quasar by attempting to reverse time in its vicinity slows down the universal rate of flow of time in its locality. This slow down of the rate of flow of time or time dilation results in light leaving the quasar being far red shifted at source. This rules out a black hole as being a candidate for the quasar as black holes and galaxies share the same time frame, this means it has to be a white hole which is time reversed in comparison to the rest of the universe

## Key words

Gravity, time, black hole, white hole, redshift, cosmological expansion, Hubbles Law, cyclic universe, matter, antimatter, accretion disc, ionized gas, filaments, spiral galaxy, quasar ejection, relativistic speed.

This revision is to correct a fatal flaw in the last paragraph of page 7.

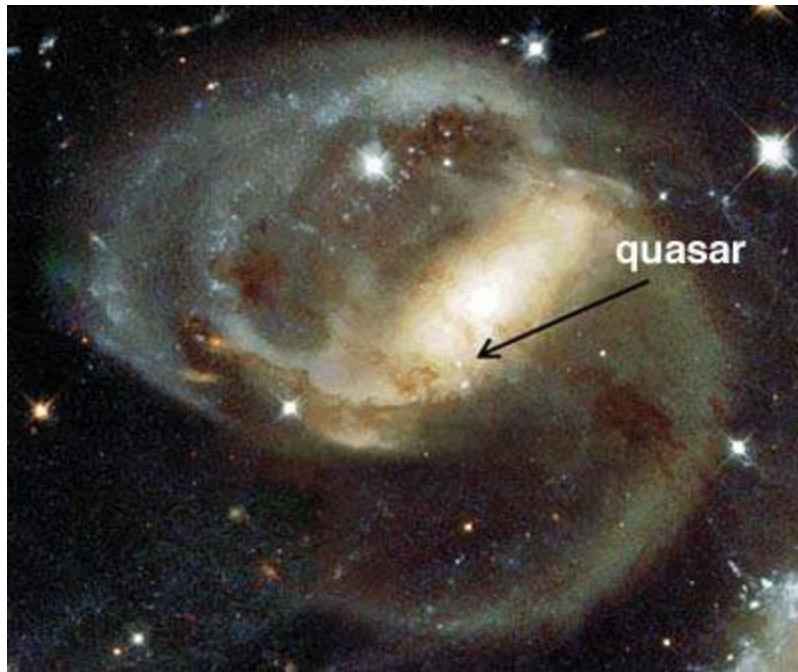


Photo courtesy of Nasa

In 2005 a quasar with redshift  $z = 2.11$  was discovered near the core of active galaxy NGC 7319 which is a low redshift galaxy ( $z = 0.0225$ ) in Stephen's Quintet located about 360 million light years away. This presents a problem for standard theory, which customarily places a quasar with such a large redshift at a distance of about 10 billion light years, or 30 times further away. The finding that the NGC 7319 quasar is actually a member of a low redshift galaxy indicates that the quasar's redshift is not due to cosmological expansion as would be interpreted by Hubbles Law.

There are two reasons to conclude that this quasar is associated with this particular galaxy. First, the dust in this part of the galaxy is so dense that it is unlikely that light from a distant quasar would be able to be visible through it. Second, a jet is observed to connect the active nucleus of NGC 7319 with this quasar suggesting that the quasar source was ejected from the core of NGC 7319.

"No one has found a quasar with such a high redshift, with a redshift of 2.11, so close to the center of an active galaxy," "If it weren't for this redshift dilemma, astronomers would have thought quasars originated from these galaxies or were fired out from them like bullets or cannon balls," said Geoffrey Burbidge, professor of physics and astronomer at the University of California at San Diego's Center for Astrophysics and Space Sciences

One likely cause of the quasar and galaxy not having the same redshift is gravitational redshifting at source of the quasars emitted light.

## **Black and White Holes in the Universe**

It is proposed that the universe is cyclic with matter universe following antimatter universe ad infinitum. Black holes at the end of one cycle of the universe become white holes in the next.

The main differences being, black holes devour matter (in our universe) white holes expel matter. A black hole can only be “seen” indirectly by the energy emitted as it consumes matter. A white hole emits vast quantities of ionized matter and can be seen directly. In addition, a white hole has no accretion disc or event horizon.

### **Are quasars significant?**

From the Sloan Survey, it can be estimated that there were at least 10,000.000 quasars in the early Universe. There were probably very many more, billions even. This theory maintains that quasars from this early epoch are white holes, the engines of creation in our cycle of the Universe. In the previous cycle of the universe (antimatter), these same phenomena were black holes, the engines of doom.

*"A large survey like SDSS-II is important because quasars are about 10,000 times rarer than are normal galaxies," explained Reinabelle Reyes of Princeton University.*

### **Types of “quasars”**

This theory maintains that quasars are “white holes”; they only appear in the first 20% of the age of the Universe. They can be easily confused with black holes in active galaxy nuclei, as the standard model believes black and white holes to be the same thing.

**Note.** Popular physics (the standard model) always refer to both black holes and white holes as black holes as supposedly white holes do not exist.

## **The Case for Quasars in the Early Universe Being White Holes**

It is observed that some quasars (black holes) existed in the very early Universe, possibly within a billion years of it forming. There is speculation as to how they came to be at such an early epoch.

This theory maintains that as the engines of creation (white holes), they were the earliest features. Without which, there would be no Universe. The further away from us you get, the more quasars are present - until about 20% of the age of the Universe, at which point, the level falls to almost zero.

## **Where did all the quasars go?**

Quasars (black holes) were plentiful in the first 20% of the age of the Universe but have decreased dramatically until the present epoch.

If the standard model is right then where did they (the black holes) go, why did they go and why do we not observe any now? To be fair this theory would predict that if white holes can evaporate in that period so can black holes but only if they have no food. There is no explanation how a black hole could be ejected from its galaxy so even if it runs out of food it can just sit and wait whilst gravity brings the next course. If galaxies formed this way, they would eventually be ring shaped, open at the center. They would not be dense in the center as observed.

If black holes in this present era do not duplicate what quasars, (supposedly black holes) did in the past then what reason do we have to believe that quasars and black holes are the same phenomena. Quite obviously, they are not.

Black holes in the centers of modern galaxies emit but a fraction of the energy and mass of a quasar. Black holes are not ejected from the centers of modern galaxies. Black holes consume galaxies. Quasars (white holes) create galaxies.

However, the white holes that created the universe have since re cycled their mass (antimatter) into matter. Their disappearance over time is a natural outcome of their evolution.

“quasars cannot continue to feed at high rates for 10 billion years, after a quasar finishes accreting the surrounding gas and dust, it becomes an ordinary galaxy.”

<http://en.wikipedia.org/wiki/Quasa>

The standard model assumes the quasar to be a black hole. It begs a couple of questions. What mechanism is responsible for eventually ejecting the quasar from the galaxy? As young galaxies, age the associated quasar vanishes. Where did it go and why? It has been observed that quasar galaxy pairs often appear to have a bridge of material flowing between them. If the quasar is a black hole then it is devouring the galaxy, which should eventually vanish leaving just the quasar. However, if the quasar is a white hole then it is feeding the galaxy with material. As such, the quasar will eventually vanish.

## **No accretion disc?**

As regards quasars the "standard" model of an active galaxy nucleus describes a very massive black hole surrounded by an accretion disk. It is to the accretion disk we might attribute most of the radiation. However, observational tests for the accretion disk have come up less than positive.

No accretion disc is going to be observed around a white hole, as they do not have them.

## **The “production” of ionized gas**

The standard model predicts that, as quasars are large sources of ultraviolet and X-ray radiation they can ionize rarefied gas for millions of light-years distant. We therefore have a picture of hot, mostly ionized clouds of gas between visible galaxies, vanishing over time as they either formed into galaxies or gravitationally attracted by existing galaxies.

Another interpretation of this is white holes “produced” the ionized gas that became hydrogen as it cooled.

## **Clean quasars**

Some early quasars are clearly visible, as dust had no time to form.

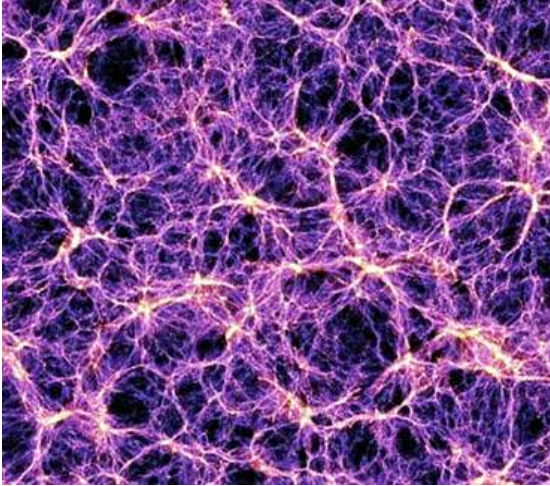
This is something of a paradox, as the standard model would propose they were made from dust.

## **Sloan digital sky survey**

The universe today is filled with sheets of galaxies curving through mostly empty space. Like soap bubbles in a sink, they form voids and come together along lines that form dense filaments. Our best model for how the universe began, the Big Bang, gives us a picture of a universe filled with a hot, uniform soup of fundamental particles. Somehow, between the time when the universe began and today, gravity has pulled together the matter into regions of high density, leaving behind empty voids. What triggered this change from uniformity to structure? Understanding the origin of the structure that we see in the universe today is a crucial part of reconstructing our cosmic history. Courtesy Sloan Digital Sky Survey. <http://www.sdss.org/background/science.html>

## **On a very large scale foamy filaments**

Many super gigantic white holes at the start of a universe cycle would create vast bubbles of plasma around themselves, which due to the repulsive force of gravity would be very distant. The bubbles when compressed by the repulsive force of gravity (white holes) and contracted by the attractive force of gravity become “foamy filaments” the birthplace and home of galaxies. When the giant white holes that created these features ran out of fuel they would vanish without trace leaving large voids, which is exactly what we see.



### **Foamy filaments**

### **On a much smaller scale how a quasar (white hole) creates a spiral galaxy**

The jets from a quasar (much smaller white hole than above) produce two large gas clouds. If the whole arrangement rotated in the plane of the gas clouds then it would form a barbed spiral galaxy with the quasar at its centre, again exactly, what we see.

### **Galaxy quasar ejection**

As the quasar converts its mass (antimatter) to matter, eventually the mass of the galaxy will become sufficient to gravitationally eject the quasar (white hole) from the galaxy. The quasar will continue to feed the galaxy with material until it has converted all of its mass, at which time it will expire without trace.

Once the quasar that formed the galaxy has expired then it is probable that a black hole would form at the centre of the then middle-aged galaxy.

Whilst it is easy to see the mechanism by which a white hole should be ejected from a galaxy, it is very difficult to imagine what mechanism could eject a black hole.

## Quasars and white holes

As well as being the very first (furthest) objects in the Universe, quasars (white holes) have remained the brightest of visible objects. A white hole is very bright as it has no event horizon and is ejecting huge amounts of energy and material at relativistic speed. Quasars from the very beginning of the universe, apart from their great distance, should be clearly visible, as they would be free of dust, which had not time to form.

If the outpouring of white holes created the Universe, why can't we see them?  
Well, perhaps we can...

## A brief look at time

From  $E = mc^2$  we can deduce that mass gives time an arrow, forward for matter (relative to us), backward for antimatter. Energy gives time a rate of flow

Energy creates matter in the proportion of  $E = mc^2$ .

From relativity we get  $E = mc^2$  or  $c^2 = E/m$

So we can see that the rate of flow of time,  $Rt = c^2 = E/m$

The proportion of energy to matter, which is a variable, dictates the rate of flow of time.

$Rt = E/m$  where  $Rt$  is the rate of flow of time.  $E$  is energy and  $m$  mass

This can be re-written as  $Rt = E/m + -ma$  where  $ma$  is antimatter

In other words, the rate of flow of time in the universe is directly proportional to energy and inversely proportional to matter minus antimatter.

$Rt = E/m + -ma$  can tell us a lot about the universe.

## Why do Quasars Seen Outside of but Apparently Connected to Galaxies Appear to Have a Greater Red Shift than the Associated Galaxy?

One would think that, if this type of quasar is a white hole then light leaving the quasar would be gravitationally blue shifted in relation to the galaxy, not red shifted as seen.

However, the explanation is both the galaxy and the quasar are massive objects having their own (local) independent rates of flow of time. This mass of antimatter, the white hole, will not be balanced by produced matter particles, as the galaxy will have gravitationally swept them up.

The white hole is time reversed in relation to the associated galaxy and the universe in general. It alters the rate of flow of time in its locality by the following  $Rt = E/m + -ma$ . The white hole by attempting to reverse time in its vicinity slows down the universal rate of flow of time in its locality. This slow down of the rate of flow of time or time dilation results in light leaving the white hole being far red shifted at source.

### **When not to use Hubbles Law**

Hubbles Law is grossly inaccurate when applied to quasars. Even applying Hubbles law to the associated galaxy may give a distorted result as the quasar will have marginally slowed the rate of flow of time in that locality.

The difference in red shift between the galaxy and the quasar “white hole” is an indicator of the amount of mass (antimatter) left in the white hole. From this it may possible to work out the rate at which a white hole converts its mass (antimatter) into matter.

### **Conclusion**

Quasars are far red shifted at source and are magnitudes of distance closer to us than the Doppler red shift would predict. This means that the universe is a lot smaller and a lot younger than it is believed to be.

### **Cyclic universe**

Black holes were born going forward in time in their own universe cycle prior to this. However, in the previous antimatter cycle of the universe the arrow of time was reversed relative to us. In our Universe, the arrow of time is reversed changing the black hole into a white hole. In-between universes the arrow of time was double ended and the rate of flow of time infinite in both directions; this caused an inflation of the universe in which there was no causality. However, that is another story.

See <http://vixra.org/pdf/1103.0102v1.pdf>