

The End of the Universe

There are many hypothesises about the end of the Universe and they all depend on knowing the speed that the expansion of the Universe is slowing down. If the Universe is slowing down faster than a certain rate then eventually the expansion will come to a stop and gravity will win and the Universe will start to collapse. It will be pulled by gravity towards a common centre of gravity and eventually there will be a big crunch and everything will collide at this centre of gravity.

Some scientists believe that the expansion of the Universe is not slowing down fast enough and therefore the Universe will carry on expanding for ever. One day in the far distant future if we were still around we would look up into the night sky and see nothing, nothing at all because all the stars would be beyond the limits of the observable Universe (The observable Universe is defined by the point that the reseeding stars are travelling apparently faster than the speed of light, i.e. their red shift is off the scale).

Now recently the expansion of the Universe has been measured and its found that its not slowing down but speeding up (which is impossible with the current laws of physics). To make the laws work the scientists invented a force called Dark Energy (it should be called Dark Force in my opinion). This acts a bit like gravity but instead of a force of attraction its a force of repulsion.

Those are the 3 main theories of the end of everything but I feel that they are all wrong and the Universe will end as follows.

The Black Holes in the centre of each Galaxy will eventually consume all the matter within that Galaxy. The mechanism for this is as follows. When mass is concentrated its gravity is increased (this is the mechanism that formed the stars. When 2

hydrogen atoms just happened to be closer together than the average their gravity was ever so slightly greater than when they were the average distance apart. This slightly stronger gravity attracted other atoms and now we have many atoms that are closer than the average so their combined gravity is enough to attract even more atoms. The result is this clump of hydrogen gas gets hot and a star is formed). There is nowhere that mass is more concentrated than in a Black Hole because a Black Hole is a singularity. The gravity emanating from that concentrated mass is very much greater than the gravity that originally emulated from it when it was normal mass and in the form of a star or cloud of gas etc.

As the gravity and therefore the sphere of influence of the Black Hole is now very much greater, then it will pull more and more star towards it. These will be swallowed and the mass concentrated in the space of a singularity, making the field of influence even greater. By this mechanism the Black Hole will eventually, in the far distant future swallow the whole Galaxy.

This mechanism will eventually mean that every Galaxy will be replaced by its central Black Hole. The crucial part of my hypothesis is that all these Black Holes will have considerably more gravity than the original gravity that emanated from the original Galaxy. This is because the mass of the original Galaxy is now concentrated in the Black Hole, in a singularity. As all these Black Holes will attract each other and be pulled together towards a common centre of gravity. I believe that this extra concentration of gravity is enough for it not to matter how fast the Universe is slowing down or indeed speeding up, because this extra gravity will overcome it.

The end result is that all the Black Holes will combine into one singularity with the mass of the entire Universe. In other words this singularity is now to all intents and purposes the same as the singularity that started the Universe as we know it. Maybe just maybe a singularity of this mass is unstable and one day out of this singularity there comes an incredibly hot and incredibly

dense ball of pure energy. The expansion of this ball of energy continued for about 375,000 years until this bubble of pure energy is cool enough for sub-atomic particles to condense out of this energy bubble. So now we have a sort of soup of super hot plasma consisting of just Electrons, Protons and Neutrons with no atoms (yet) and still the pure energy left over from the big bang. The atoms are yet to come as is the stars and galaxies.

What I have just described is of course the Big Bang that started it all but this is the second Big Bang (or perhaps the umpteenth Big Bang there is no way to know). I believe that the Universe is doomed to keep on being created and destroyed for ever. I admit that I haven't done the maths because I have a life to live (I'm in my late 70's) and I don't have access to a super computer so this hypothesis could well be just that and just a hypothesis and not a real theory at all. I leave you all to contemplate it. What ever happens to the Universe it will take Googlelian's of year to complete and yes as a final point a google is a mathematical term like a thousand or a trillion. A google is 1 with a hundred zero's after it so a very big number indeed, but in the life time of the Universe we need such big numbers.

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